SAMSUNG

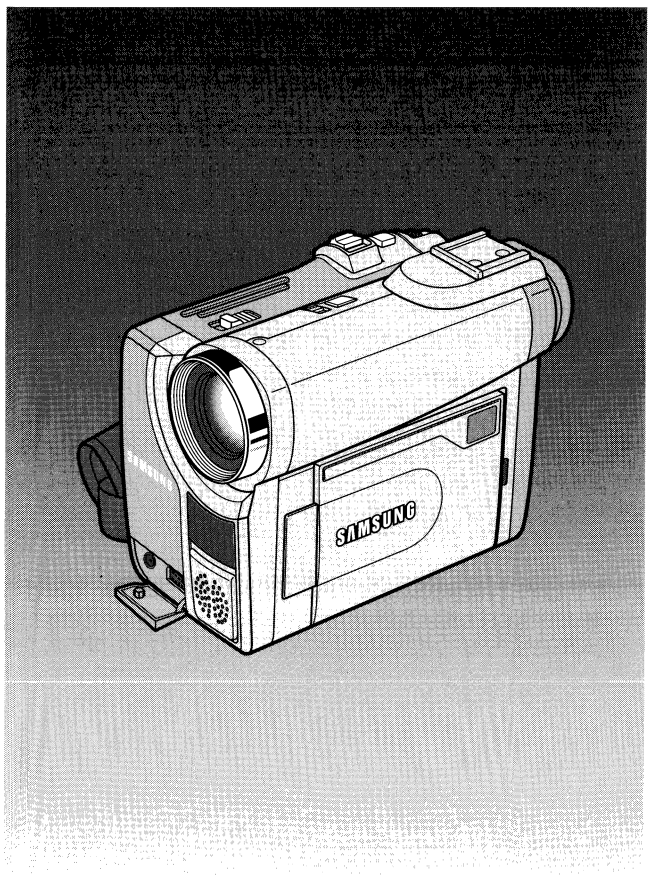
DIGITAL CAMCORDER

VP-D31/D33/D34/D39
D31i/D33i/D34i/D39i

SERVICE Manual

For mechanical disassembly and adjustment, refer to the "Mechanical Manual" (CSM2000 ⟶ AD68-30200A).

DIGITAL CAMCORDER



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1. Exploded View and Parts List

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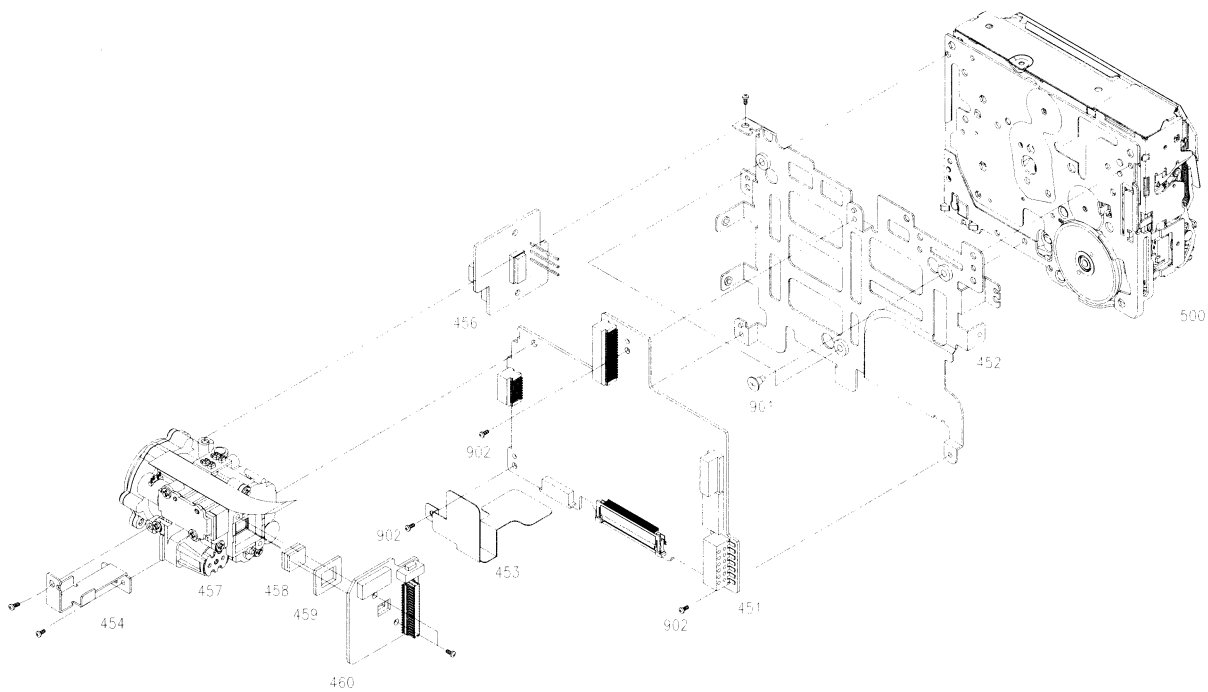
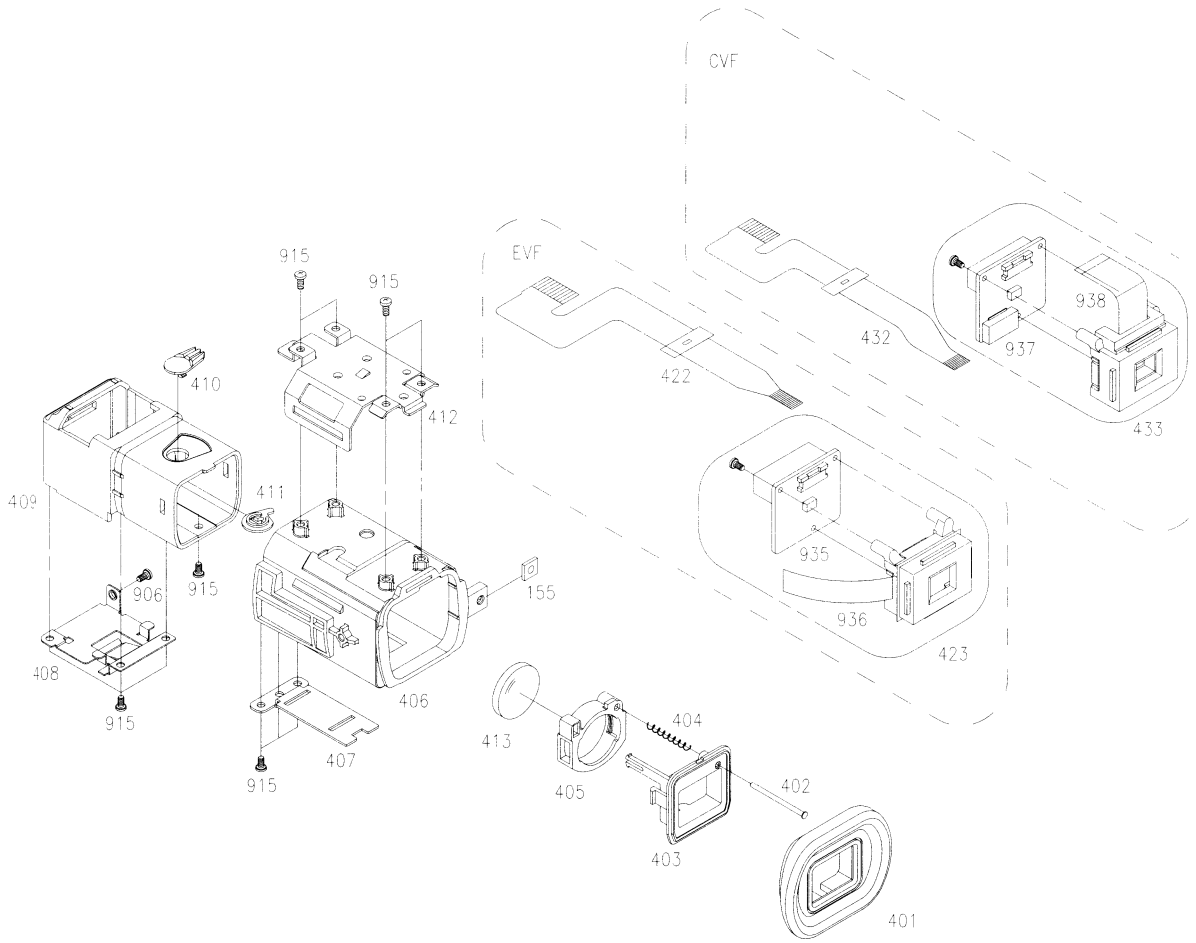
1-1 Ass'y Lens/Deck



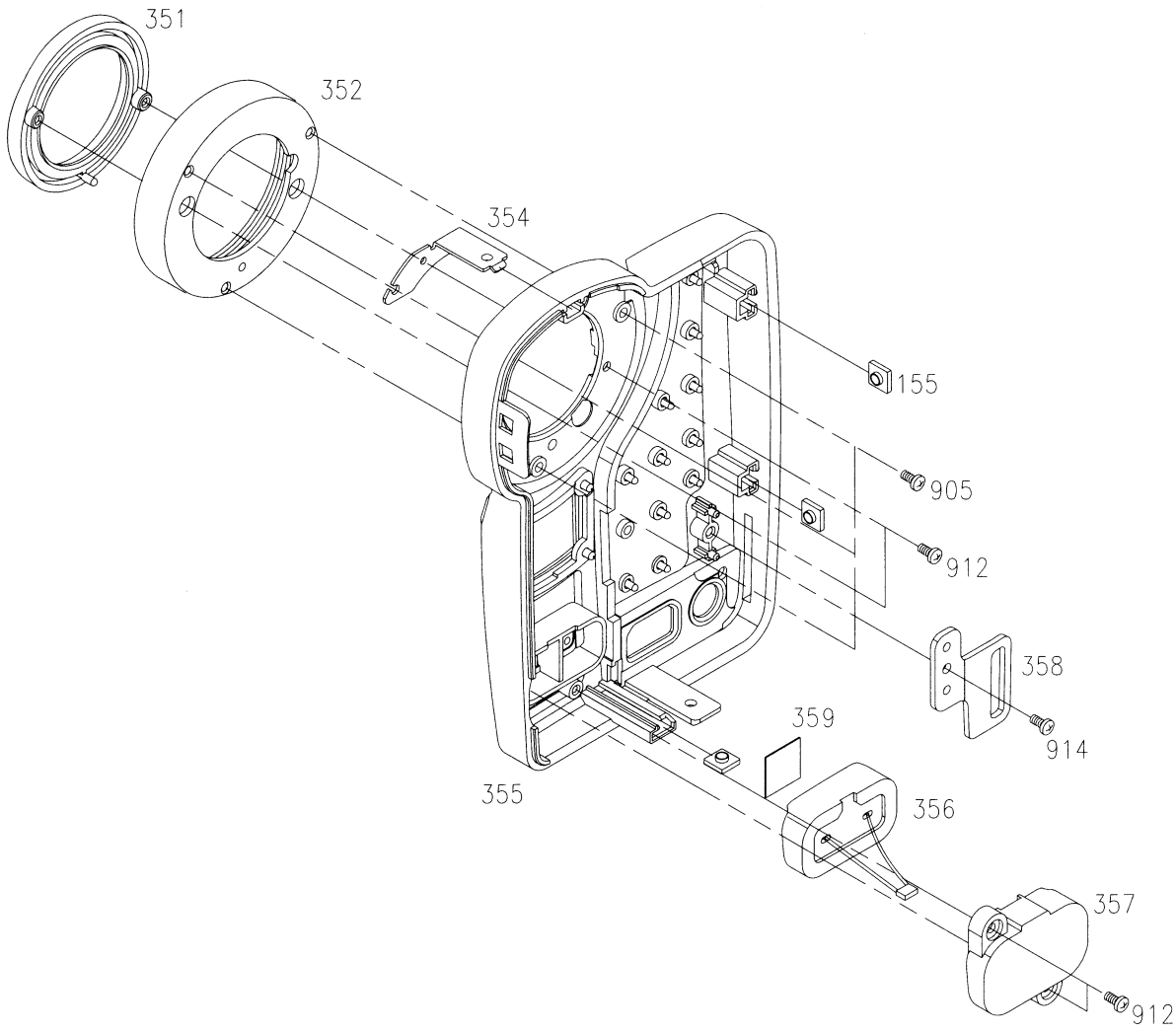
Loc. No	New Part No	Description and Specification	Remark
451	AD97-06205R	ASSY-MAIN BOARD	VP-D30
451	AD97-06205S	ASSY-MAIN BOARD	VP-D30i
451	AD97-06205E	ASSY-MAIN BOARD	VP-D31
451	AD97-06205F	ASSY-MAIN BOARD	VP-D31i
451	AD97-06205P	ASSY-MAIN BOARD	VP-D33
451	AD97-06205G	ASSY-MAIN BOARD	VP-D33i
451	AD97-06205H	ASSY-MAIN BOARD	VP-D34
451	AD97-06205J	ASSY-MAIN BOARD	VP-D34i
451	AD97-06205K	ASSY-MAIN BOARD	VP-D39
451	AD97-06205L	ASSY-MAIN BOARD	VP-D39i
452	AD97-06882A	ASSY-CHASSIS DECK	
453	AD63-00487A	SHEILD CASE FPC	
454	AD61-01287A	BRKT LENS	
456	AD97-06757A	ASSY-FRONT BOARD	
457	AD97-04747A	ASSY-LENS	
458	AD29-00019A	LOW PASS FILTER	
459	AD60-00053A	SPACER-CCD	
460	AD97-06496A	ASSY-CCD	
500	AD97-04896A	ASSY-DECK	
901	6009-001284	SCREW-SPECIAL	
902	6001-001526	SCREW-MACHINE	

1-2 Ass'y EVF/CVF



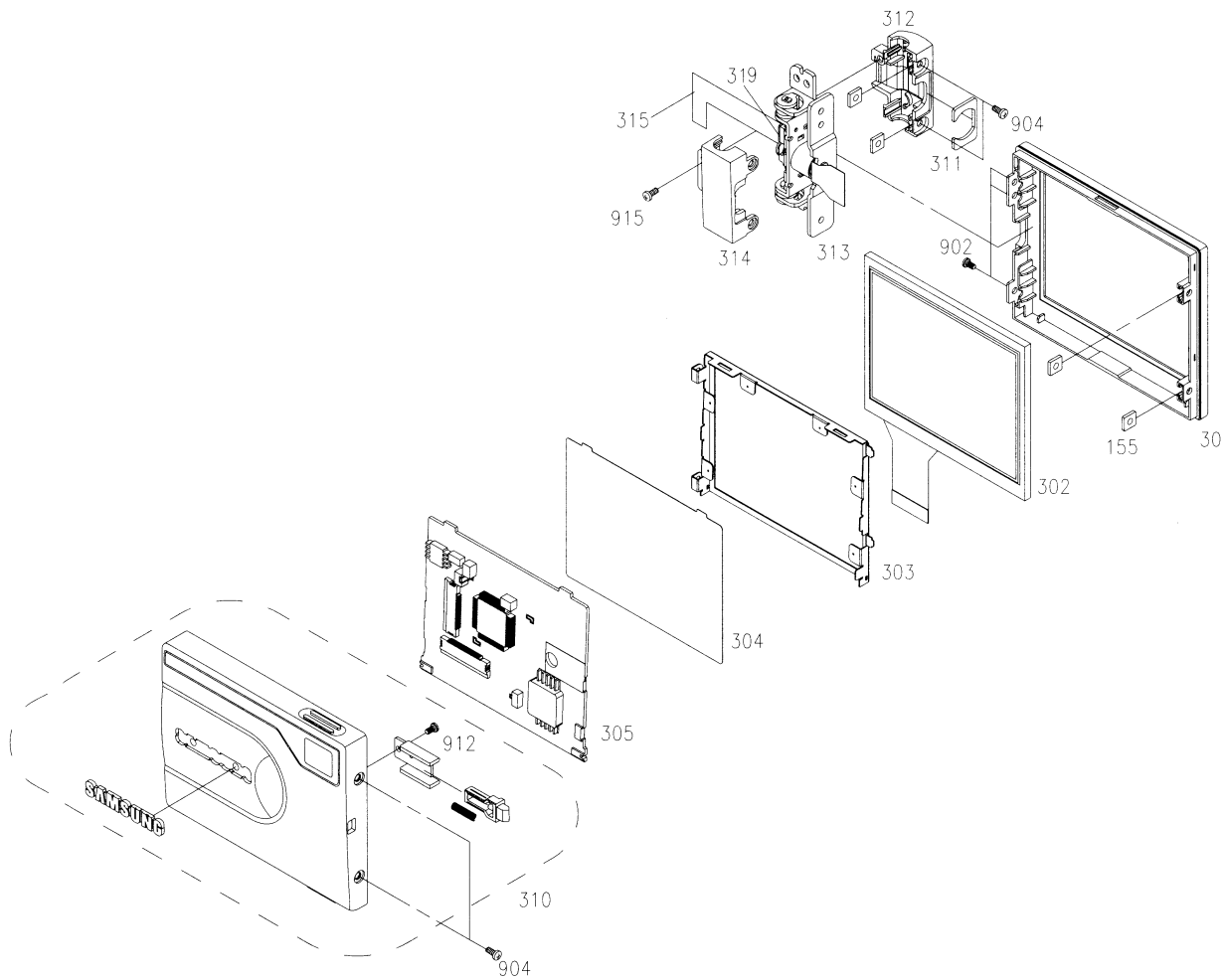
Loc. No	New Part No	Description and Specification	Remark
155	AD61-12033A	BRKT NUT	
401	AD73-00094A	RUBBER-EYE CUP	
402	AD66-00233A	SHAFT-EVF LENS	
403	AD63-00451A	COVER-EYE CUP	
404	AD61-01300A	SPRING-EVF LENS	
405	AD61-01302A	HOLDER-EVF LENS	
406	AD64-01017A	CASE-EVF BODY	
407	AD61-01290A	BRKT-EVF STOPPER	
408	AD61-01288A	BRKT-EVF SLIDE	
409	AD64-01016A	CASE-EVF SLIDE	
410	AD64-01018A	KNOB-EVF	
411	AD64-01019A	KNOB-EVF ROTATION	
412	AD61-01384A	BRKT-EVF TOP	
413	AD67-00194A	LENS EVF 14X G1	
422	AD41-00402A	FPC-EVF	
423	AD97-07159A	ASSY-UNIT EVF	EVF PAL Model only
423	AD97-07160A	ASSY-UNIT EVF	EVF NTSC Model only
432	AD41-00401A	FPC-CVF	
433	AD97-07026A	ASSY-UNIT CVF	CVF PAL Model only
433	AD97-07025A	ASSY-UNIT CVF	CVF NTSC Model only
906	6001-001444	SCREW MACHINE	
915	6002-001132	SCREW TAPTITE	
935	AD97-06506B	ASSY-EVF BOARD(PAL)	EVF PAL Model only
935	AD97-06506A	ASSY-EVF BOARD(NTSC)	EVF NTSC Model only
936	AD07-00009A	LCD-PANNEL;-,MCVVQ410(320),0.24 INCH	
937	AD97-06616A	ASSY-CVF BOARD	CVF Model only
938	AD07-00035A	LCD-PANNEL;LCX042AK	CVF Model only

1-3 Ass'y Front



Loc. No	New Part No	Description and Specification	Remark
155	AD61-12033A	BRACKET-NUT	
351	AD61-01294A	HOLDER-HOOD;ABS 94HB BLK	
352	AD67-00215A	LENS-HOOD;CU	
354	AD61-01305A	BRKT-FRONT;SUS304 1/2H T0.5	
355	AD64-01008A	CASE-FRONT;ABS 94HB(G6238)	
356	AD97-06753A	ASSY-MIC;ASSY,THETA-PJ	
357	AD63-00443A	COVER-MIC;ABS 94HB(G6238)	
358	AD61-01306A	BRKT-GRIP FRONT;SUS304 1/2H T1.0	
359	AD63-00455A	SHEET-MIC;SPONGE T1.5	
905	6001-000803	SCREW-MACHINE;M1.4 X 4 BLK(C/FRONT+LENS/HOOD)	
912	6003-001291	SCREW-TAPPING;T1.4 X 3 BLK(C/FRONT+H/HOOD,C/MIC)	
914	6003-001245	SCREW-TAPPING;T1.7 X 3.5 BLK(CO/FRONT+BRKT/GRIP)	

1-4 Ass'y LCD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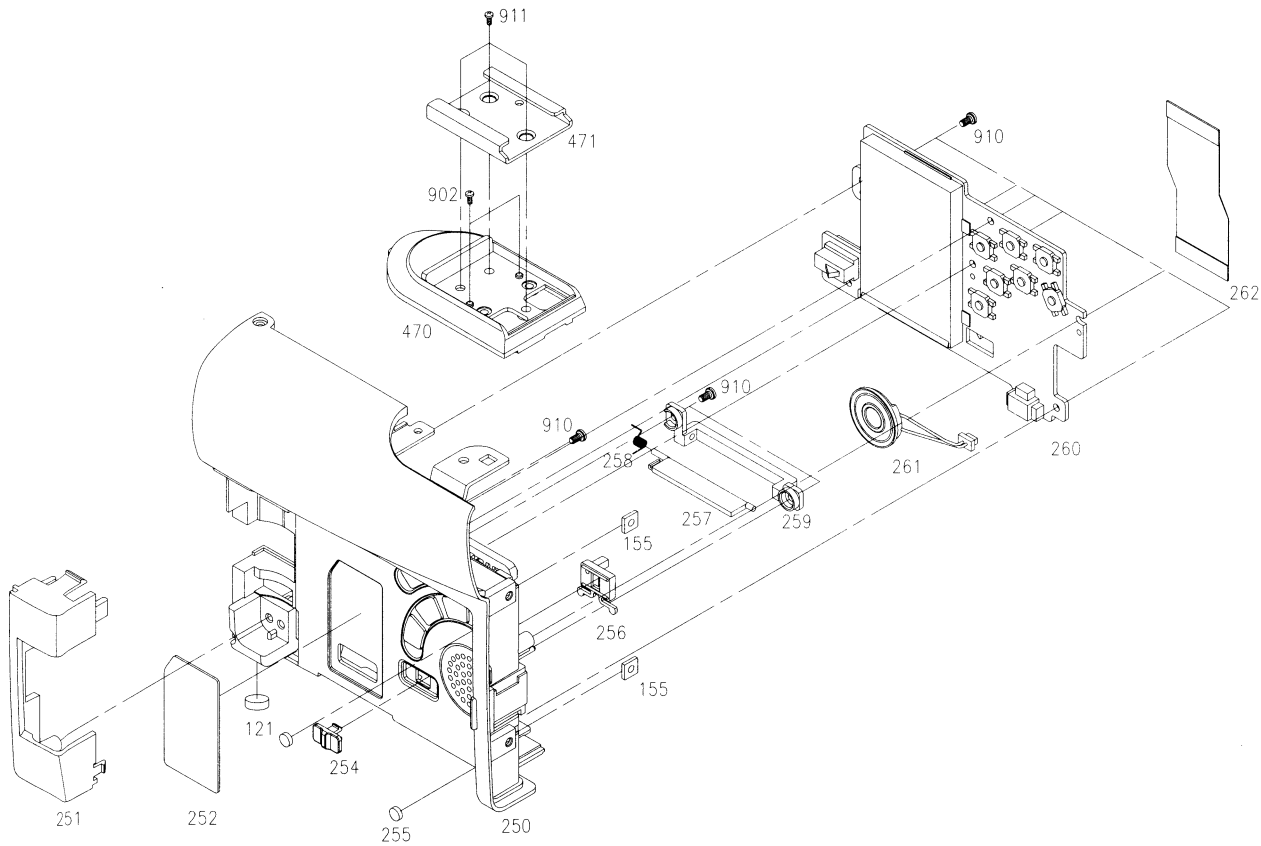
Loc. No	New Part No	Description and Specification	Remark
155	AD61-12033A	BRACKET-NUT	
301	AD64-01011A	CASE-LCD BOTTOM	
302	AD07-00037A	LCD-PANNEL;ACX307AKA	VP-D31/D31i/D33/D33i/D34/D34i
302	AD07-00036A	LCD-PANNEL	VP-D39/D39i
303	AD97-06883A	ASSY-BACKLIGHT	
304	AD62-00029A	INSULATION LCD	
305	AD97-06619A	ASSY-LCD BOARD	
310	AD97-07317A	ASSY CASE LCD	VP-D31/D31i
310	AD97-07319A	ASSY CASE LCD	VP-D33/D33i/D34/D34i
310	AD97-07323A	ASSY CASE LCD	VP-D39/D39i
311	AD63-00291A	COVER-SLIDE	
312	AD63-00447A	COVER-HINGE BOTTOM	
313	AD97-06877A	ASSY-HINGE	
314	AD63-00449A	COVER-HINGE TOP	
315	AD97-06878A	ASSY-LCD FPC	
319	AD61-00816A	HOLDER-INVERT	
902	6001-001526	SCREW MACHINE	
904	6001-001527	SCREW-MACHINE	
912	6003-001291	SCREW TAPTITE	
915	6002-001132	SCREW TAPTITE	

1-5 Ass'y Left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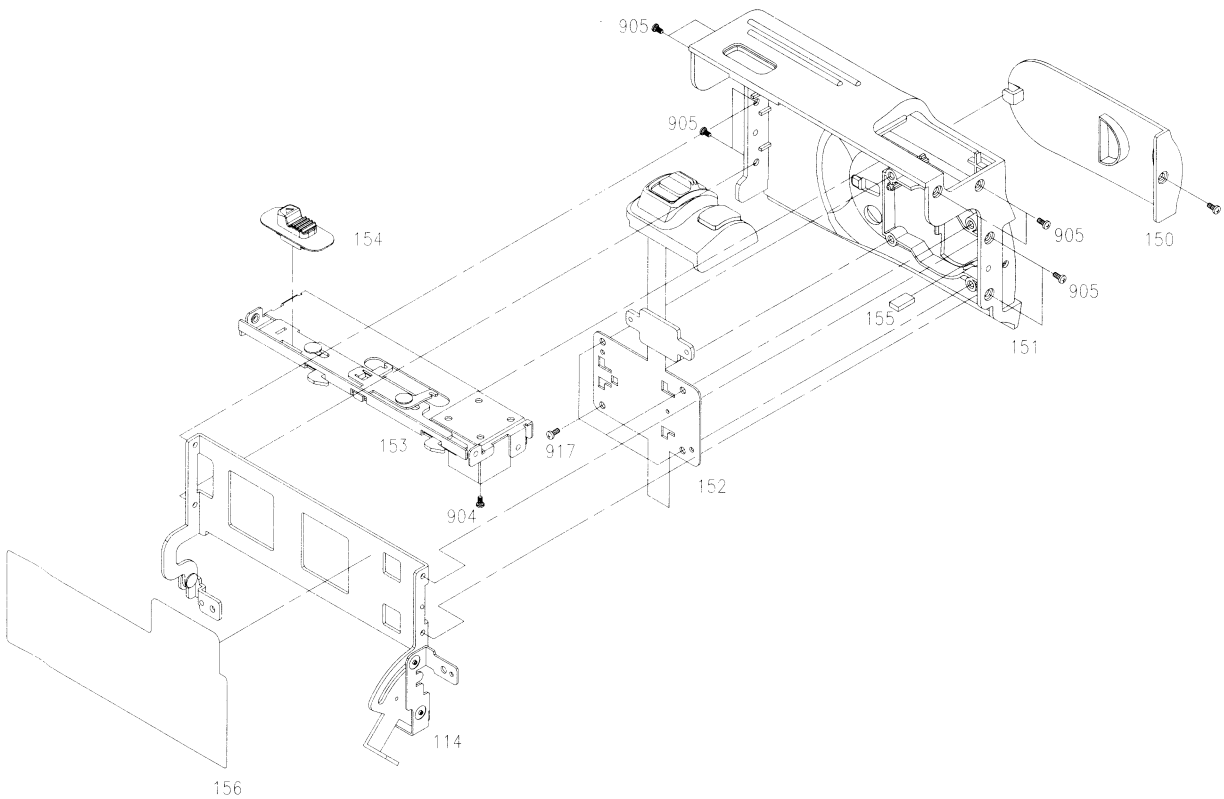
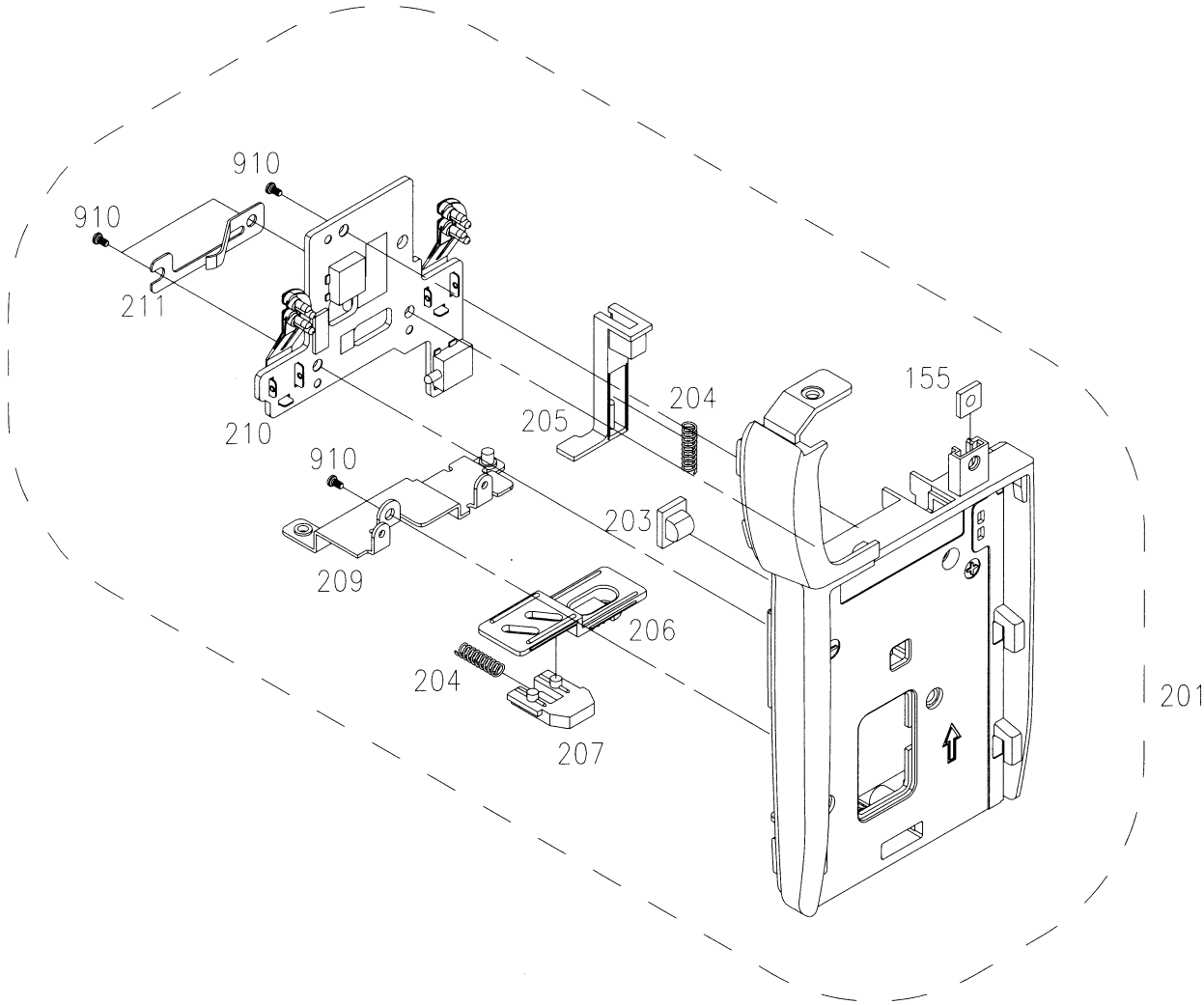
Loc. No	New Part No	Description and Specification	Remark
121	AD69-00454A	PAD-LEG	
155	AD61-12033A	BRACKET-NUT;T0.8	
250	AD97-07012A	ASSY-CASE LEFT;THETA-PJ,MS-NOTHING	VP-D31/D31i
250	AD97-06964A	ASSY-CASE LEFT;THETA-PJ,MS-EXIST(EXPORT)	VP-D33/D33i/D39/D39i/
251	AD63-00439A	COVER-LEFT;ABS 94HB	
252	AD64-01009A	INLAY-M/S;PC(MS)	
252	AD64-01009B	INLAY-M/S;PC(NON MS)	VP-D31/D31i
254	AD64-01004A	KNOB-SELECT;ABS 94HB	
255	AD69-00263B	PAD-HOUSING	
256	AD61-01292A	HOLDER-SELECT;POM	
257	AD63-00440A	COVER-DOOR M/S;ABS 94HB	
258	AD61-01028A	SPRING DOOR M/S;SPRING	
259	AD61-01293A	HOLDER-DOOR M/S;ABS 94HB	
260	AD97-06209A	ASSY-FUNCTION BOARD	
260	AD97-06961A	ASSY-FUNCTION BOARD	VP-D31/D31i
261	AD97-04289A	ASSY-SPEAKER	
262	AD97-06955A	ASSY FUNCTION FPC	
470	AD63-00438A	COVER-TOP;1	
471	AD61-01385A	BRACKET ACC SHOE;1	
902	6001-001526	SCREW MACHINE	
910	6003-001453	SCREW-TAPTITE;T1.7 X 4	
911	6003-001445	SCREW-TAPTITE;T2 X 5	

1-6 Ass'y Cover Housing



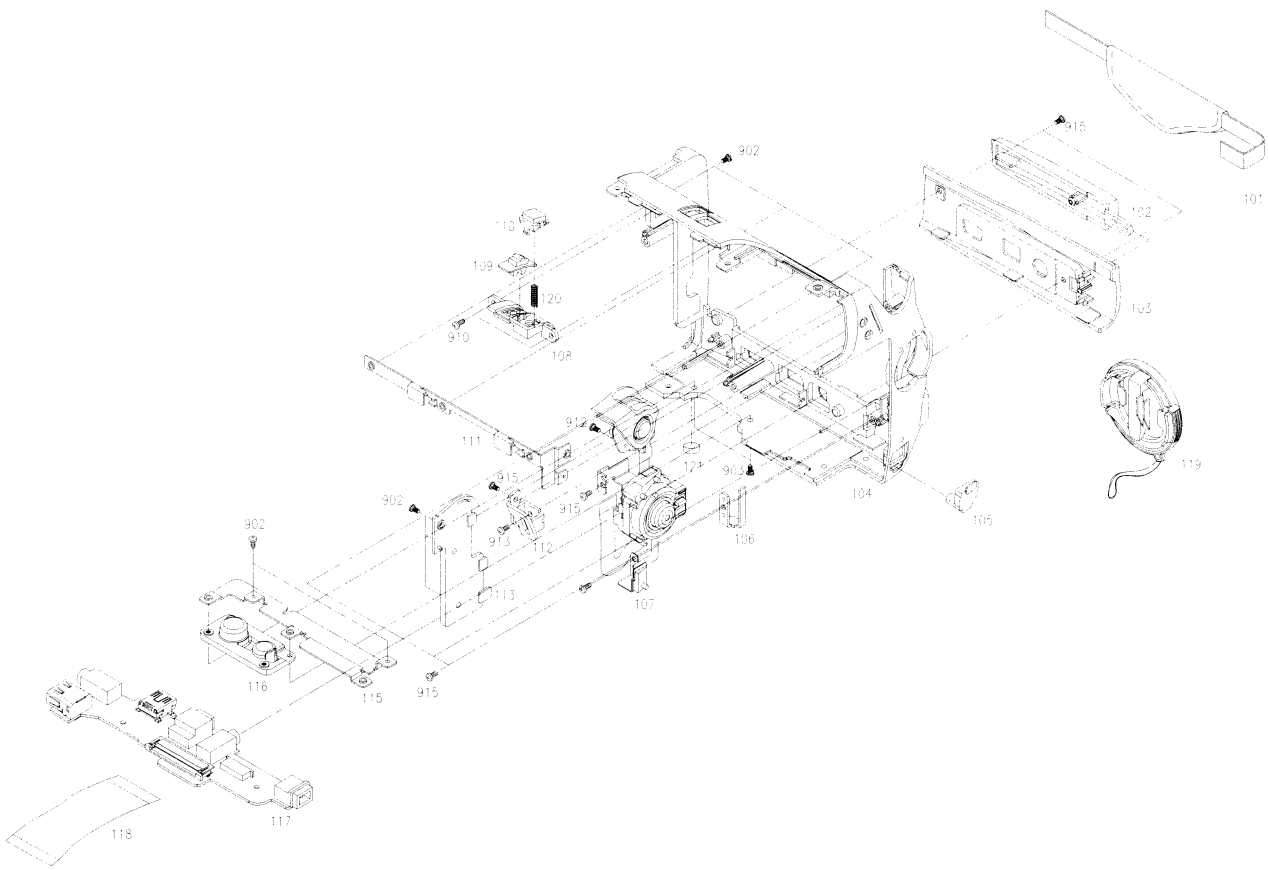
Loc. No	New Part No	Description and Specification	Remark
114	AD97-06875A	ASSY-LINK HOUSING BOTTOM	
150	AD63-00457A	COVER-DUMMY HOUSING ;ABS 94HB	
151	AD63-00458A	COVER-HOUSING;ABS 94HB	
152	AD97-06772A	ASSY-ZOOM	
153	AD97-06874A	ASSY-LINK HOUSING TOP	
154	AD64-01026A	KNOB-TAPE EJECT;ABS 94HB	
155	AD61-12033A	BRKT NUT	
156	AD63-00483A	SHEET HOUSING	
904	6001-001527	SCREW-MACHIN;M1.7 X 2 WHT(ASSY-LINK TOP+ASSY-ZOOM)	
905	6001-000803	SCREW-MACHINE;M1.4 X 4 BLK(C/FRONT+LENS/HOOD)	
917	6003-001292	SCREW-TAPTITE	

1-7 Ass'y Rear



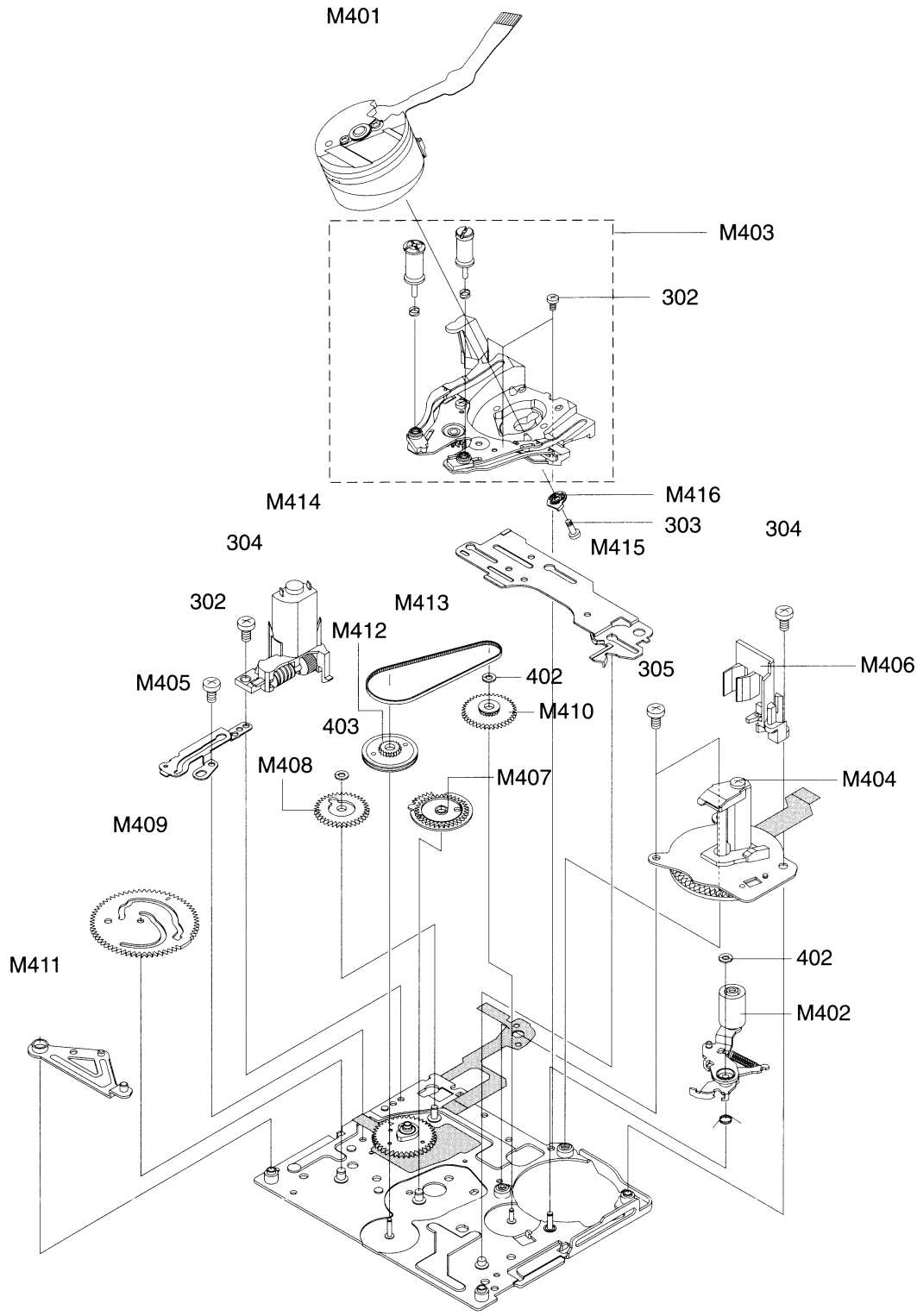
Loc. No	New Part No	Description and Specification	Remark
155	AD61-12033A	BRACKET NUT	
201	AD97-06879A	ASSY-REAR	
203	AD61-01303A	STOPPER BATTERY	
204	AD61-01301A	SPRING-EJECT-BATTERY	
205	AD64-01022A	KNOB-DETECT	
206	AD64-01021A	KNOB-EJECT-BATTERY	
207	AD64-01023A	KNOB-RELEASE-BATTERY	
209	AD61-01291A	BRACKET-BATTERY EJECT	
210	AD97-06954A	ASSY TERMINAL FPC	
211	AD61-01304A	SPRING-STOPPER	
910	AC60-12128A	SCREW T1.7x4	

1-8 Ass'y Right



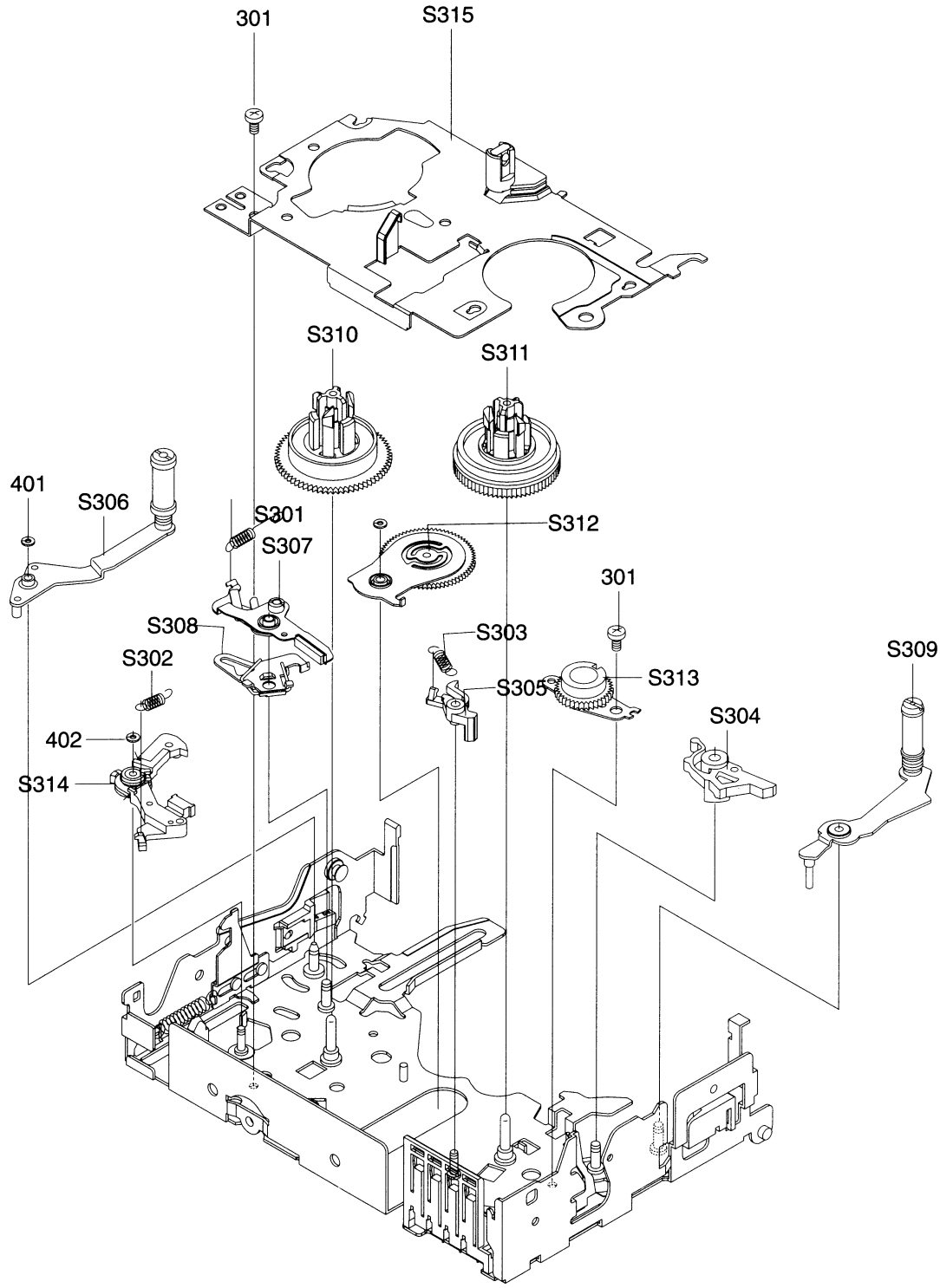
Loc. No	New Part No	Description and Specification	Remark
101	AD59-00103A	UNIT BELT GRIP	
102	AD63-00464A	COVER-JACK RIGHT;TPR	
103	AD63-00456A	COVER-DUMMY RIGHT;ABS 94HB	
104	AD64-01035A	CASE-RIGHT;ABS 94HB	PAL only
105	AD63-00463A	COVER DC JACK;TPR	
106	AD61-01307A	BRKT-GRIP BACK	
107	AD97-06873A	ASSY-POWER	
108	AD61-01324A	HOLDER-NITE SHOT;POM	
109	AD64-01025A	KNOB-NIGHT SHOT;ABS 94HB	
110	AD64-01034A	BUTTON-SLOW SHOT;ABS 94HB	
111	AD61-01309A	BRKT-RIGHT	
112	AD61-01310A	BRKT-SHOULDER	
113	AD63-00459A	COVER POWER;ABS 94HB	
115	AD61-01308A	BRKT-JACK PCB	
116	AD61-01319A	BASE-TRIPOD;PC	
117	AD97-06210A	ASSY JACK PCB	
118	AD41-00400A	FPC-JACK	
119	AD97-07023A	ASSY CAP HOOD	
120	AD61-01394A	SPRING SLOW SHOT	
121	AD69-00454A	PAD-LEG	
902	6001-001526	SCREW MACHINE;M1.7 X 3	
903	6001-001289	SCREW-MACHIN;M1.7 x 5 (RIGHT + TRIPOD)	
910	6003-001453	SCREW-TAP;TAP 1.7 X 4 (RIGHT+HOLDER-NITE SHOT)	
912	6003-001291	SCREW TAPTITE	
913	6002-001085	SCREW-TAP;TAP 1.7 X 5 (RIGHT+BRKT-SHOULDER)	
915	6002-001132	SCREW TAPTITE	

1-9 Mechanical Parts (1) (MAIN CHASSIS)



Loc. No	New Part No	Description and Specification	Remark
302	6001-001452	SCREW-MACHINE;BH,+,M1.4,L2.5,BLK,SWRCH18	
303	6001-001451	SCREW-MACHINE;TH,+,M1.4,L4.12,ZPC(YEL),S	
304	6001-001331	SCREW-MACHINE;BH,+,M1.4,L3.0,BLK(LOCK),S	
305	AC60-12113A	SCREW;-,BLK,L2.2,S45C-HC,BH,+,-,M1.4	
402	6031-001417	WASHER-PLAIN;POLYSLIDE,-,ID0.8,D3.0,T0.2	
403	6031-001419	WASHER-PLAIN;LUMINA,CUT,ID1.1,OD2.8,T0.2	
M401	AD97-02552A	ASSY-DRUM REV02;AHS+R/T+MOT+PBT,DD-3,ASS	
M402	AD97-02928A	ASSY-ARM-PINCH-FULL;-,DD-3,-	
M403	AD97-02931A	ASSY-DRUM BASE RAIL;-,DD-3,-	
M404	AD31-00028A	MOTOR-CAPSTAN;-,DD-3,-,-,-,-,-,-,-,-,-	
M405	AD61-00490A	GUIDE-TENSION CAM;DD-3,SUS430 CP,T0.3,-,	
M406	AD61-00496A	HOLDER-FPC SUB;DD-3,DURACON,-,-,-,-	
M407	AD66-00061A	GEAR-CONNECT;DD-3,POM,0.4/0.5,8.5/23,-,-	
M408	AD66-00064A	GEAR-WHEEL;DD-3,POM,0.3/05,30/8,-,-,PCD	
M409	AD66-00065A	GEAR CAM-MAIN;DD-3,SECC,0.5,50,-,-,PCD 2	
M410	AD66-00069A	GEAR-CAPSTAN;DD-3,DYAMID,0.4,28,-,-,PCD	
M411	AD66-00085A	LEVER-CAM;DD-3,SUS430 CP,T0.5,-,-,-,-,-	
M412	AD66-00098A	GEAR-PULLEY ASSY;DD-3,POM+MAGNET,-,-,-,-	
M413	AD66-62001A	BELT-TIMING;DD-C2R,POLYURETHAN,-,L84,-,-	
M414	AD97-02935A	ASSY-LOADING-MOTOR;-,DD-3,-	
M415	AD97-02987A	ASSY-SLIDE-MAIN;-,DD-3,-	
M416	AD61-00558A	PLATE-S/P BASE;DD-3,SUS632 CSP ,T0.15,-,	

1-10 Mechanical Parts (2) (SUB CHASSIS)



Loc. No	New Part No	Description and Specification	Remark
301	6001-001513	SCREW;BH,+,M1.4,D3.0 , WH	
401	6031-001430	WASHER-PLAIN;POLYSLIDER,-,ID0.8,D2.5,T0.	
402	6031-001417	WASHER-PLAIN;POLYSLIDE,-,ID0.8,D3.0,T0.2	
S301	AD61-00509A	SPRING-TENSION;DD-3,SUS304-WPB,•'0.12,-,	
S302	AD61-00513A	SPRING-BRAKE S;DD-3,SUS304-WPB,•'0.18,-,	
S303	AD61-00659A	SPRING-MAIN BRAKE T;DD-3,SWP-B,•'0.16,-,	
S304	AD66-00090A	LEVER-EJECT;DD-3,POM,-,-,-,-,-,-	
S305	AD66-00093A	BRAKE-MAIN T;DD-33,NYLON,-,-,-,-	
S306	AD66-00108A	ARM-TENSION-ASSY;DD-3,SUS304 CP+ETC,-,-,	
S307	AD97-02932A	ASSY-BRAKE-TENSION;-,DD-3,-	
S308	AD97-02933A	ASSY-RELEASE-T;-,DD-3,-	
S309	AD97-02934A	ASSY-REVIEW-ARM;-,DD-3,-	
S310	AD97-02938A	ASSY-REEL-DISK-S;-,DD-3,-	
S311	AD97-02939A	ASSY-REEL-DISK-T;-,DD-3,-	
S312	AD97-02940A	ASSY-IDLER;-,DD-3,-	
S313	AD97-02941A	ASSY-BRAKE-PULLEY;-,DD-3,-	
S314	AD97-02942A	ASSY-BRAKE-S;-,DD-3,-	
S315	AD97-05350A	ASSY-COVER REEL;SUS+ETC,CSM2000	

2. Electrical Parts List

Loc. No	Part No	Desc & Spec	Remark
		ASSY-CCD BOARD	
CC01	2404-000212	C-TA,CHIP;3.3uF,20%,25V,-,TP,3528,-	
CC02	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CC03	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CC04	2203-000491	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1608	
CC05	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CC06	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
CNC01	3710-001106	CONNECTOR-SOCKET;40P,2R,0.8mm,SMD-S,SN	
CNC02	3708-001687	CONNECTOR-FPC/FFC/PIC;27,0.3MM,SMD-A,SN	
DC01	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
QC01	0505-000180	FET-SILICON;2SK1070,N,-,50mA,-,150mW,SOT	
RC01	2007-000072	R-CHIP;47ohm,5%,1/16W,DA,TP,1608	
RC02	2007-000079	R-CHIP;1.8Kohm,5%,1/16W,DA,TP,1608	
RC03	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
SWC01	3404-001116	SWITCH-TACT;12V DC,50mA,160gf,3.5x7.8x3.	
		ASSY-MAIN BOARD	
B401	2901-001022	CORE-FERRITE BEAD;SPACE	
C111	2203-005344	C-CERAMIC,CHIP;22nF,10%,25V,X7R,TP,1005,	
C112	2203-005344	C-CERAMIC,CHIP;22nF,10%,25V,X7R,TP,1005,	
C113	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C114	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C116	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C117	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C118	2203-002487	C-CERAMIC,CHIP;4.7nF,10%,25V,X7R,TP,1005	
C119	2203-002487	C-CERAMIC,CHIP;4.7nF,10%,25V,X7R,TP,1005	
C120	2203-000254	C-CERAMIC,CHIP;10nF,10%,16V,X7R,TP,1005,	
C121	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C122	2203-000254	C-CERAMIC,CHIP;10nF,10%,16V,X7R,TP,1005,	
C123	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C124	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C201	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C203	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C206	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C208	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C209	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C210	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C211	2203-005627	C-CERAMIC,CHIP;470NF,10%,10V,X5R,TP,1608	
C215	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C216	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C217	2203-006006	C-CERAMIC,CHIP;0.005NF,°æ0.25PF,50V,C0G,	
C218	2203-006006	C-CERAMIC,CHIP;0.005NF,°æ0.25PF,50V,C0G,	
C221	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C222	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C223	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C224	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C227	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C228	2203-006006	C-CERAMIC,CHIP;0.005NF,°æ0.25PF,50V,C0G,	
C229	2203-006006	C-CERAMIC,CHIP;0.005NF,°æ0.25PF,50V,C0G,	
C230	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C231	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C310	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	
C311	2404-001254	C-TA,CHIP;220UF,20%,2.5V,-,TP,3.5(L)X2.8	
C312	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C313	2404-001251	C-TA,CHIP;22UF,20%,7V,-,TP,3216	
C314	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C315	2203-000254	C-CERAMIC,CHIP;10nF,10%,16V,X7R,TP,1005,	
C316	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C317	2203-000254	C-CERAMIC,CHIP;10nF,10%,16V,X7R,TP,1005,	
C318	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C319	2203-000254	C-CERAMIC,CHIP;10nF,10%,16V,X7R,TP,1005,	
C320	2203-000254	C-CERAMIC,CHIP;10nF,10%,16V,X7R,TP,1005,	
C321	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C322	2404-001254	C-TA,CHIP;220UF,20%,2.5V,-,TP,3.5(L)X2.8	
C323	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	
C324	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C325	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C327	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C328	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C401	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C402	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C404	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C406	2203-005481	C-CERAMIC,CHIP;47nF,10%,10V,X7R,TP,1005,	
C407	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C408	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C409	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C410	2203-005481	C-CERAMIC,CHIP;47nF,10%,10V,X7R,TP,1005,	
C411	2203-001405	C-CERAMIC,CHIP;22nF,+80-20%,25V,Y5V,TP,1	
C412	2203-005481	C-CERAMIC,CHIP;47nF,10%,10V,X7R,TP,1005,	
C413	2203-005481	C-CERAMIC,CHIP;47nF,10%,10V,X7R,TP,1005,	
C414	2203-005481	C-CERAMIC,CHIP;47nF,10%,10V,X7R,TP,1005,	
C501	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C502	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C503	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	

Loc. No	Part No	Desc & Spec	Remark
C504	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C505	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C506	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C507	2203-000585	C-CERAMIC,CHIP;220pF,10%,50V,X7R,TP,1005	
C508	2404-001257	C-TA,CHIP;1UF,20%,16V,-,TP,2012	
C509	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C510	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C511	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C512	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C513	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C514	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C601	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C602	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C603	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C605	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C606	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C607	2203-005627	C-CERAMIC,CHIP;470NF,10%,10V,X5R,TP,1608	
C608	2203-005627	C-CERAMIC,CHIP;470NF,10%,10V,X5R,TP,1608	
C609	2203-005627	C-CERAMIC,CHIP;470NF,10%,10V,X5R,TP,1608	
C610	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C611	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C612	2404-000284	C-TA,CHIP;10uF,20%,16V,-,TP,3528,-	
C613	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C616	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C617	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C618	2203-002487	C-CERAMIC,CHIP;4.7nF,10%,25V,X7R,TP,1005	
C619	2203-005481	C-CERAMIC,CHIP;47nF,10%,10V,X7R,TP,1005,	
C620	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C621	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
C622	2203-000234	C-CERAMIC,CHIP;0.1NF,5%,50V,C0G,TP,1005	
C623	2203-000234	C-CERAMIC,CHIP;0.1NF,5%,50V,C0G,TP,1005	
C624	2203-000234	C-CERAMIC,CHIP;0.1NF,5%,50V,C0G,TP,1005	
C625	2203-006047	C-CERAMIC,CHIP;33NF,10%,16V,X7R,TP,1005	
C626	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C627	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C628	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
C629	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C630	2203-000489	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1005	
C631	2203-000489	C-CERAMIC,CHIP;2.2nF,10%,50V,X7R,TP,1005	
C701	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C702	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C703	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
C705	2203-000714	C-CERAMIC,CHIP;3.3nF,10%,50V,X7R,TP,1005	
C706	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C707	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	

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C708	2203-002982	C-CERAMIC,CHIP;6.8nF,10%,50V,X7R,TP,1005	
C709	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C710	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C711	2203-002982	C-CERAMIC,CHIP;6.8nF,10%,50V,X7R,TP,1005	
C712	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C713	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C714	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C715	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C716	2203-000330	C-CERAMIC,CHIP;0.012NF,5%,50V,C0G,TP,100	
C717	2203-000330	C-CERAMIC,CHIP;0.012NF,5%,50V,C0G,TP,100	
C718	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C719	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C720	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C721	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C722	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
C723	2203-000254	C-CERAMIC,CHIP;10nF,10%,16V,X7R,TP,1005,	
C724	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C725	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
C726	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C727	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C841	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C842	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C843	2404-001257	C-TA,CHIP;1UF,20%,16V,-,TP,2012	
C844	2404-001257	C-TA,CHIP;1UF,20%,16V,-,TP,2012	
C845	2203-002487	C-CERAMIC,CHIP;4.7nF,10%,25V,X7R,TP,1005	
C846	2404-001257	C-TA,CHIP;1UF,20%,16V,-,TP,2012	
C847	2404-001257	C-TA,CHIP;1UF,20%,16V,-,TP,2012	
C848	2203-002487	C-CERAMIC,CHIP;4.7nF,10%,25V,X7R,TP,1005	
C851	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C852	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C853	2404-001244	C-TA,CHIP;4.7UF,20%,6.3V,-,TP,2012	
C854	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C855	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C856	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C857	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C858	2404-001244	C-TA,CHIP;4.7UF,20%,6.3V,-,TP,2012	
C859	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C860	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C861	2404-001244	C-TA,CHIP;4.7UF,20%,6.3V,-,TP,2012	
C862	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
C863	2203-000234	C-CERAMIC,CHIP;0.1NF,5%,50V,C0G,TP,1005	
C864	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C865	2203-000560	C-CERAMIC,CHIP;220nF,+80-20%,25V,Y5V,TP,	
C866	2203-000560	C-CERAMIC,CHIP;220nF,+80-20%,25V,Y5V,TP,	
C867	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	

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C868	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C869	2404-001257	C-TA,CHIP;1UF,20%,16V,-,TP,2012	
C870	2203-000560	C-CERAMIC,CHIP;220nF,+80-20%,25V,Y5V,TP,	
C871	2203-000560	C-CERAMIC,CHIP;220nF,+80-20%,25V,Y5V,TP,	
C872	2203-000234	C-CERAMIC,CHIP;0.1NF,5%,50V,C0G,TP,1005	
C873	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C874	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C875	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C881	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C882	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C884	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C901	2203-000234	C-CERAMIC,CHIP;0.1NF,5%,50V,C0G,TP,1005	
C902	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C903	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C904	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C905	2203-000254	C-CERAMIC,CHIP;10nF,10%,16V,X7R,TP,1005,	
C906	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C907	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C908	2203-002717	C-CERAMIC,CHIP;10nF,+80-20%,50V,Y5V,TP,1	
C909	2203-000234	C-CERAMIC,CHIP;0.1NF,5%,50V,C0G,TP,1005	
C910	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
C911	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C912	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C913	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C914	2203-000438	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1005,-	
C915	2203-000254	C-CERAMIC,CHIP;10nF,10%,16V,X7R,TP,1005,	
C916	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C917	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C919	2203-006078	C-CERAMIC,CHIP;10000NF,20%,16V,X5R,TP,32	
C921	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C923	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C924	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C925	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C926	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C927	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C928	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C929	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C930	2203-005922	C-CERAMIC,CHIP;4700NF,20%,6.3V,X5R,TP,20	
C931	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
C933	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C934	2404-000284	C-TA,CHIP;10uF,20%,16V,-,TP,3528,-	
C936	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C937	2404-000284	C-TA,CHIP;10uF,20%,16V,-,TP,3528,-	
C938	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C940	2203-005921	C-CERAMIC,CHIP;10000NF,20%,4V,X5R,TP,201	

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C941	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	
C942	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C946	2203-005921	C-CERAMIC,CHIP;10000NF,20%,4V,X5R,TP,201	
C947	2404-001247	C-TA,CHIP;22UF,20%,4V,WT,TP,2012	
C949	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C950	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C952	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C954	2203-005922	C-CERAMIC,CHIP;4700NF,20%,6.3V,X5R,TP,20	
C955	2404-001246	C-TA,CHIP;10UF,20%,6.3V,WT,TP,2012	
C956	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C957	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C958	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C959	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C960	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C961	2203-005922	C-CERAMIC,CHIP;4700NF,20%,6.3V,X5R,TP,20	
C962	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
C964	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C965	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C966	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C969	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C971	2203-005923	C-CERAMIC,CHIP;1000NF,20%,6.3V,X5R,TP,16	
C976	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C977	2203-005686	C-CERAMIC,CHIP;2200nF,20%,10V,X5R,TP,201	
C985	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
CA01	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA02	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA03	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA04	2404-001250	C-TA,CHIP;47UF,20%,4V,-,TP,3216	
CA05	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA06	2404-001250	C-TA,CHIP;47UF,20%,4V,-,TP,3216	
CA07	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA08	2404-001251	C-TA,CHIP;22UF,20%,7V,-,TP,3216	
CA09	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA12	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA13	2203-000812	C-CERAMIC,CHIP;0.033NF,5%,50V,C0G,TP,100	
CA14	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA15	2203-000330	C-CERAMIC,CHIP;0.012NF,5%,50V,C0G,TP,100	
CA16	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA17	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA18	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA19	2203-002443	C-CERAMIC,CHIP;0.33nF,10%,50V,X7R,TP,100	
CA20	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA31	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA32	2404-001251	C-TA,CHIP;22UF,20%,7V,-,TP,3216	
CA33	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	

Loc. No	Part No	Desc & Spec	Remark
CA34	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA35	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA40	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CA90	2404-001251	C-TA,CHIP;22UF,20%,7V,-,TP,3216	
CA91	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CN101	3708-001235	CONNECTOR-FPC/FFC/PIC;10P,0.5mm,SMD-A,SN	
CN301	3708-001712	CONNECTOR-FPC/FFC/PIC;17P,0.3MM,SMD-A,SN	
CN302	3708-001626	CONNECTOR-FPC/FFC/PIC;38P,0.5MM,SMD-A,SN	
CN303	3711-005012	CONNECTOR-HEADER;BOX,40P,2R,0.5MM,SMD-S,	
CN601	3708-001215	CONNECTOR-FPC/FFC/PIC;18P,0.5mm,SMD-A,SN	
CN602	3708-001498	CONNECTOR-FPC/FFC/PIC;19P,0.5mm,SMD-A,SN	
CN603	3708-001236	CONNECTOR-FPC/FFC/PIC;10P,0.5mm,SMD-A,SN	
CN604	3708-001816	CONNECTOR-FPC/FFC/PIC;11P,0.5MM,SMD-A,TI	
CN701	3710-001466	CONNECTOR-SOCKET;20P,2R,0.5mm,SMD-S,AUF	
CN702	3708-001130	CONNECTOR-FPC/FFC/PIC;12P,0.5mm,SMD-S,SN	
CN703	3708-001111	CONNECTOR-FPC/FFC/PIC;14P,0.5mm,SMD-A,SN	
CN704	3711-004241	CONNECTOR-HEADER;BOX,18P,2R,1MM,SMD-A,SN	
CN705	3711-004239	CONNECTOR-HEADER;BOX,18P,2R,0.8MM,SMD-A,	
CNP01	3710-000554	CONNECTOR-SOCKET;40P,2R,0.8mm,SMD-A,SN	
CP01	2404-000157	C-TA,CHIP;1uF,20%,35V,-,TP,3216,-	
CP02	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
CP03	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP04	2404-000212	C-TA,CHIP;3.3uF,20%,25V,-,TP,3528,-	
CP05	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP06	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
CP07	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP08	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
CP09	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP10	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
CP11	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
CP12	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CP13	2203-000812	C-CERAMIC,CHIP;0.033NF,5%,50V,C0G,TP,100	
CP14	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
CP15	2404-001251	C-TA,CHIP;22UF,20%,7V,-,TP,3216	
CP16	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP17	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP18	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP19	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP21	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP22	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
CP23	2404-001251	C-TA,CHIP;22UF,20%,7V,-,TP,3216	
CP24	2203-001405	C-CERAMIC,CHIP;22nF,+80-20%,25V,Y5V,TP,1	
CP25	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP26	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
CP27	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
CP28	2203-006047	C-CERAMIC,CHIP;33NF,10%,16V,X7R,TP,1005	
CP30	2203-006047	C-CERAMIC,CHIP;33NF,10%,16V,X7R,TP,1005	
CP33	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP34	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CP35	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP36	2404-001251	C-TA,CHIP;22UF,20%,7V,-,TP,3216	
CP37	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
CP38	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
CP39	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
CP40	2203-000359	C-CERAMIC,CHIP;0.15NF,5%,50V,C0G,TP,1005	
CP41	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
CP42	2203-006048	C-CERAMIC,CHIP;100NF,10%,10V,X7R,TP,1005	
CP43	2203-005061	C-CERAMIC,CHIP;100nF,+80-20%,16V,Y5V,TP,	
D701	0401-001110	DIODE-SWITCHING;-,80V,300MA,SOD-523,TP	
D702	0401-001110	DIODE-SWITCHING;-,80V,300MA,SOD-523,TP	
D901	0401-001059	DIODE-SWITCHING;1SS362,80V,80mA,SC-75,TP	
D902	0401-001059	DIODE-SWITCHING;1SS362,80V,80mA,SC-75,TP	
DP02	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
FL901	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012	
IC101	AD13-00019A	IC ASIC-LDV5000,PRML;LDV5000,DELTA-PJ,64	
IC102	1201-001511	IC-PREAMP;370250,VSOP,14P,-,DUAL,500V/V,	
IC201	AD13-00021A	IC ASIC;-,DV 1 CHIP(REV0.1),320,+1.8V,	
IC202	1105-001487	IC-DRAM;EM636165,2X512KX16BIT,FBGA,60P	
IC301	1201-001322	IC-VIDEO AMP;NJM2538V,SOP,20P,175MIL,-,-	
IC303	1204-001946	IC-OSD PROCESSOR;UPD6467GR,SSOP,20P,173M	
IC401	1204-001573	IC-VIDEO PROCESS;SAA7113H,QFP,44P,393MIL	
IC451	AC14-12012T	IC-OP AMP;TA75S01F(TE85L),QFP,-	
IC501	1205-001988	IC-DATA COMM./GEN.;TSB41AB1-PAP,QFP,64P,	
IC601	1003-001241	IC-MOTOR DRIVER;LB11990W,SQPF,64P,-,-,1A	
IC602	AD14-10001C	IC-AMP;NJM2904V,SSOP,OP-AMP	
IC701	AD09-00187A	IC MICOM;UPD70F3166Y,DELTA,257,3.2/2.5V	
IC702	0909-001013	IC-REAL TIME CLOCK;5C372,8BIT,SOP,8P,-,3	
IC703	1203-002807	IC-VOLTAGE REGULATOR;XC6413FY01MR,SOT-25	
IC705	1103-001218	IC-EEPROM;524AB0X91,4Kx8Bit,SOP,8P,156MI	
IC706	1203-002184	IC-VOLTAGE REGULATOR;71725,SOT-23-5,5P,6	
IC708	0801-002800	IC-CMOS LOGIC;NC7SV08,AND GATE,SC70,5P,4	
IC841	1205-002247	IC-CODEC;AK4564VQ,LQFP,48P,7X7MM,PLASTI	
IC843	AD09-00122A	IC-MOC-VOICE;ML2201,-,8PIN,2V~5.5V,4.096	
IC901	1203-002323	IC-PWM CONTROLLER;MB3881,LQFP,64P,-,PLAS	
ICA01	AD13-00018A	IC HYBRID-DSP5;S5C7375X,DELTA-PJ,232,0 T	
ICA02	1105-001423	IC-DRAM;K4S643232E-SE/N70,4X512KX32BIT	
ICA03	1107-001365	IC-FLASH MEMORY;K8D1616UBA,1MX16BIT,TBGA	
ICA04	0801-002349	IC-CMOS LOGIC;7S66,BILATERAL SWITCH,SOP,	
ICP01	1003-001065	IC-CLOCK DRIVER;KS7221D,SOP,20P,225MIL,Q	
ICP02	1002-001270	IC-A/D CONVERTER;TLV990BPFB,10,TQFP,48P,	

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ICP03	1003-001530	IC-MOTOR DRIVER;UPD16877MA-6A5,TSSOP,24P	
ICP05	1201-001667	IC-OP AMP;12902,SSOP,TP,14P,173MIL,QUAD,	
ICP06	0801-002417	IC-CMOS LOGIC;7SHU04,INVERTER,SSOP,5P,49	
ICP07	0801-002417	IC-CMOS LOGIC;7SHU04,INVERTER,SSOP,5P,49	
ICP08	AC14-12012T	IC-OP AMP;TA75S01F(TE85L),QFP,-	
L112	2703-002430	INDUCTOR-SMD;4.7UH,25%,2.0X1.25X0.85MM	
L113	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L203	2703-002430	INDUCTOR-SMD;4.7UH,25%,2.0X1.25X0.85MM	
L204	2703-002428	INDUCTOR-SMD;1UH,25%,2.0X1.25X0.85MM	
L205	2703-002430	INDUCTOR-SMD;4.7UH,25%,2.0X1.25X0.85MM	
L206	2703-002428	INDUCTOR-SMD;1UH,25%,2.0X1.25X0.85MM	
L208	2007-000643	R-CHIP;270ohm,5%,1/16W,DA,TP,1608	
L303	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
L304	2703-002430	INDUCTOR-SMD;4.7UH,25%,2.0X1.25X0.85MM	
L305	2703-002430	INDUCTOR-SMD;4.7UH,25%,2.0X1.25X0.85MM	
L401	2703-002430	INDUCTOR-SMD;4.7UH,25%,2.0X1.25X0.85MM	
L501	2703-002430	INDUCTOR-SMD;4.7UH,25%,2.0X1.25X0.85MM	
L502	2703-002430	INDUCTOR-SMD;4.7UH,25%,2.0X1.25X0.85MM	
L601	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L701	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L702	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
L841	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
L842	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
L843	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
L846	2703-002428	INDUCTOR-SMD;1UH,25%,2.0X1.25X0.85MM	
L847	2703-002428	INDUCTOR-SMD;1UH,25%,2.0X1.25X0.85MM	
L901	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
L902	2007-000033	R-CHIP;0OHM,5%,1/8W,DA,TP,3216	
L903	2703-002414	INDUCTOR-SMD;22UH,10%,3.2X2.5X1.3MM	
L904	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
L905	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
L906	2703-001865	INDUCTOR-SMD;33UH,20%,6X6X2.8MM	
L907	2703-001910	INDUCTOR-SMD;68uH,20%,6x6x2.8mm	
L908	2703-001910	INDUCTOR-SMD;68uH,20%,6x6x2.8mm	
L910	2703-002569	INDUCTOR-SMD;22UH,20%,4.0X4.0X1.9MM	
L913	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L914	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L915	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L917	2703-001865	INDUCTOR-SMD;33UH,20%,6X6X2.8MM	
L918	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012	
L919	2703-001867	INDUCTOR-SMD;1UH,20%,2.5X2X1.8MM	
L922	2703-002569	INDUCTOR-SMD;22UH,20%,4.0X4.0X1.9MM	
L924	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L925	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L926	2703-001863	INDUCTOR-SMD;6.8UH,20%,2.5X2X1.8MM	
L929	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
L930	2703-002569	INDUCTOR-SMD;22UH,20%,4.0X4.0X1.9MM	
LA01	2703-002174	INDUCTOR-SMD;10UH,10%,2.5X2.0X1.8MM	
LA02	2703-002174	INDUCTOR-SMD;10UH,10%,2.5X2.0X1.8MM	
LA03	2703-002174	INDUCTOR-SMD;10UH,10%,2.5X2.0X1.8MM	
LA04	2703-002174	INDUCTOR-SMD;10UH,10%,2.5X2.0X1.8MM	
LA05	2703-002174	INDUCTOR-SMD;10UH,10%,2.5X2.0X1.8MM	
LP01	2703-002174	INDUCTOR-SMD;10UH,10%,2.5X2.0X1.8MM	
LP02	2703-002174	INDUCTOR-SMD;10UH,10%,2.5X2.0X1.8MM	
LP03	2703-002174	INDUCTOR-SMD;10UH,10%,2.5X2.0X1.8MM	
LP04	2703-002174	INDUCTOR-SMD;10UH,10%,2.5X2.0X1.8MM	
LP05	2703-002174	INDUCTOR-SMD;10UH,10%,2.5X2.0X1.8MM	
LP06	2703-002174	INDUCTOR-SMD;10UH,10%,2.5X2.0X1.8MM	
PS901	3601-001331	FUSE-SURFACE MOUNT;32V,1.25A,SLOW BLOW,,	
PS902	3601-001331	FUSE-SURFACE MOUNT;32V,1.25A,SLOW BLOW,,	
PS903	3601-001331	FUSE-SURFACE MOUNT;32V,1.25A,SLOW BLOW,,	
Q111	0501-002128	TR-SMALL SIGNAL;KTC4075,NPN,100mW,USM,TP	
Q112	0501-002128	TR-SMALL SIGNAL;KTC4075,NPN,100mW,USM,TP	
Q301	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
Q302	0504-001032	TR-DIGITAL;KRC404,NPN,100MW,47K/47K,SOT-	
Q303	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q401	0501-002374	TR-SMALL SIGNAL;EMZ1,NPN/PNP,150MW,EMT6,	
Q402	0501-002374	TR-SMALL SIGNAL;EMZ1,NPN/PNP,150MW,EMT6,	
Q403	0501-002374	TR-SMALL SIGNAL;EMZ1,NPN/PNP,150MW,EMT6,	
Q404	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q451	0505-001726	FET-SILICON;ECH8603,P,-20V,-4A,37MOHM,1.	
Q452	0504-001102	TR-DIGITAL;EMD3,NPN/PNP,150MW,10K/10K,EM	
Q453	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q454	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q601	0504-000167	TR-DIGITAL;RN1102,NPN,100MW,10K/10K,SSM,	
Q602	0501-000172	TR-SMALL SIGNAL;2SB1121,PNP,500mW,PCP,TP	
Q603	0501-000552	TR-SMALL SIGNAL;2SA1774-Q,PNP,150mW,EM3,	
Q604	0501-002373	TR-SMALL SIGNAL;EMX2,NPN,150MW,EMT6,TP,1	
Q701	0501-000552	TR-SMALL SIGNAL;2SA1774-Q,PNP,150mW,EM3,	
Q702	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q703	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q704	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
Q841	0504-001101	TR-DIGITAL;EMD2,NPN/PNP,150MW,22K/22K,EM	
Q842	0501-002373	TR-SMALL SIGNAL;EMX2,NPN,150MW,EMT6,TP,1	
Q843	0501-002373	TR-SMALL SIGNAL;EMX2,NPN,150MW,EMT6,TP,1	
Q901	0505-001646	FET-SILICON;MCH5803,N,30V,1.4A,370MOHM,0	
Q902	0504-001102	TR-DIGITAL;EMD3,NPN/PNP,150MW,10K/10K,EM	
Q903	0504-001101	TR-DIGITAL;EMD2,NPN/PNP,150MW,22K/22K,EM	
Q904	0504-001101	TR-DIGITAL;EMD2,NPN/PNP,150MW,22K/22K,EM	
Q905	0504-001102	TR-DIGITAL;EMD3,NPN/PNP,150MW,10K/10K,EM	

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Q906	0505-001725	FET-SILICON;MCH5818,P,-12V,-1.5A,200MOHM	
Q907	0505-001725	FET-SILICON;MCH5818,P,-12V,-1.5A,200MOHM	
Q908	0505-001725	FET-SILICON;MCH5818,P,-12V,-1.5A,200MOHM	
Q909	0505-001725	FET-SILICON;MCH5818,P,-12V,-1.5A,200MOHM	
Q910	0505-001725	FET-SILICON;MCH5818,P,-12V,-1.5A,200MOHM	
Q912	0505-001725	FET-SILICON;MCH5818,P,-12V,-1.5A,200MOHM	
Q913	0506-001066	TR-ARRAY;UMF5,NPN/PNP,2,150MW,SC-88,TP,	
Q914	0506-001066	TR-ARRAY;UMF5,NPN/PNP,2,150MW,SC-88,TP,	
Q915	0505-001725	FET-SILICON;MCH5818,P,-12V,-1.5A,200MOHM	
Q917	0506-001066	TR-ARRAY;UMF5,NPN/PNP,2,150MW,SC-88,TP,	
Q918	0506-001066	TR-ARRAY;UMF5,NPN/PNP,2,150MW,SC-88,TP,	
Q920	0504-000168	TR-DIGITAL;RN1104,NPN,100MW,47K/47K,SSM,	
QP01	0501-000225	TR-SMALL SIGNAL;2SC4617,NPN,200mW,EM3,TP	
QP02	0501-000552	TR-SMALL SIGNAL;2SA1774-Q,PNP,150mW,EM3,	
QP03	0501-000225	TR-SMALL SIGNAL;2SC4617,NPN,200mW,EM3,TP	
QP05	0504-001025	TR-DIGITAL;DTC143EE,NPN,150MW,4.7K,EMT3,	
QP06	0501-000225	TR-SMALL SIGNAL;2SC4617,NPN,200mW,EM3,TP	
QP07	0501-000552	TR-SMALL SIGNAL;2SA1774-Q,PNP,150mW,EM3,	
R111	2007-007142	R-CHIP;10Kohm,1%,1/16W,DA,TP,1005	
R112	2007-007318	R-CHIP;1Kohm,1%,1/16W,DA,TP,1005	
R113	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R115	2007-007132	R-CHIP;15Kohm,1%,1/16W,DA,TP,1005	
R116	2007-007142	R-CHIP;10Kohm,1%,1/16W,DA,TP,1005	
R117	2007-007318	R-CHIP;1Kohm,1%,1/16W,DA,TP,1005	
R118	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R119	2007-007095	R-CHIP;390OHM,5%,1/16W,DA,TP,1005	
R120	2007-007095	R-CHIP;390OHM,5%,1/16W,DA,TP,1005	
R122	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R123	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R124	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R125	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R126	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R127	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R128	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R129	2007-001313	R-CHIP;330ohm,5%,1/16W,DA,TP,1005	
R130	2007-000242	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1005	
R132	2007-000155	R-CHIP;27Kohm,5%,1/16W,DA,TP,1005	
R133	2007-000159	R-CHIP;56Kohm,5%,1/16W,DA,TP,1005	
R134	2007-000139	R-CHIP;220ohm,5%,1/16W,DA,TP,1005	
R135	2007-007095	R-CHIP;390OHM,5%,1/16W,DA,TP,1005	
R136	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R137	2007-007318	R-CHIP;1Kohm,1%,1/16W,DA,TP,1005	
R140	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R202	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R205	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R206	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R207	2007-007306	R-CHIP;100ohm,1%,1/16W,DA,TP,1005	
R208	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R209	2007-002970	R-CHIP;56OHM,5%,1/16W,DA,TP,1005	
R210	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R211	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R212	2007-000164	R-CHIP;150Kohm,5%,1/16W,DA,TP,1005	
R213	2007-000142	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1005	
R214	2007-001333	R-CHIP;18Kohm,5%,1/16W,DA,TP,1005	
R215	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R216	2007-007318	R-CHIP;1Kohm,1%,1/16W,DA,TP,1005	
R217	2007-000142	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1005	
R218	2007-000164	R-CHIP;150Kohm,5%,1/16W,DA,TP,1005	
R219	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R220	2007-000170	R-CHIP;1Mohm,5%,1/16W,DA,TP,1005	
R221	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R222	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R225	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R227	2007-000164	R-CHIP;150Kohm,5%,1/16W,DA,TP,1005	
R229	2007-000142	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1005	
R235	2007-000170	R-CHIP;1Mohm,5%,1/16W,DA,TP,1005	
R238	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R244	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R245	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R262	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R278	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R292	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R301	2007-008015	R-CHIP;75ohm,1%,1/16W,DA,TP,1005	
R302	2007-008015	R-CHIP;75ohm,1%,1/16W,DA,TP,1005	
R303	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R304	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R305	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R306	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R308	2007-002970	R-CHIP;56OHM,5%,1/16W,DA,TP,1005	
R309	2007-001305	R-CHIP;120ohm,5%,1/16W,DA,TP,1005	
R310	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R311	2007-003029	R-CHIP;820KOHM,5%,1/16W,DA,TP,1005	
R312	2007-001305	R-CHIP;120ohm,5%,1/16W,DA,TP,1005	
R313	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R314	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R315	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R316	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R320	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R323	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R329	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	

Loc. No	Part No	Desc & Spec	Remark
R398	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R401	2007-000138	R-CHIP;100ohm,5%,1/16W,DA,TP,1005	
R402	2007-000138	R-CHIP;100ohm,5%,1/16W,DA,TP,1005	
R403	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R406	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R408	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R410	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R411	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R412	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R413	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R414	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R415	2007-000160	R-CHIP;68Kohm,5%,1/16W,DA,TP,1005	
R416	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R451	2007-000170	R-CHIP;1Mohm,5%,1/16W,DA,TP,1005	
R452	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R454	2007-007318	R-CHIP;1Kohm,1%,1/16W,DA,TP,1005	
R455	2007-007132	R-CHIP;15Kohm,1%,1/16W,DA,TP,1005	
R456	2007-007946	R-CHIP;470KOHM,1%,1/16W,DA,TP,1005	
R457	2007-008354	R-CHIP;220KOHM,1%,1/16W,DA,TP,1005	
R524	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R526	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R527	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R529	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R531	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R532	2007-008301	R-CHIP;56.2OHM,1%,1/16W,DA,TP,1005	
R533	2007-008301	R-CHIP;56.2OHM,1%,1/16W,DA,TP,1005	
R534	2007-008300	R-CHIP;5.11KOHM,1%,1/16W,DA,TP,1005	
R535	2007-008301	R-CHIP;56.2OHM,1%,1/16W,DA,TP,1005	
R536	2007-008301	R-CHIP;56.2OHM,1%,1/16W,DA,TP,1005	
R537	2007-008391	R-CHIP;6.34KOHM,1%,1/16W,DA,TP,1005	
R599	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R601	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R602	2007-001311	R-CHIP;270ohm,5%,1/16W,DA,TP,1005	
R603	2007-002970	R-CHIP;56OHM,5%,1/16W,DA,TP,1005	
R604	2007-001311	R-CHIP;270ohm,5%,1/16W,DA,TP,1005	
R605	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R606	2007-007573	R-CHIP;330Kohm,1%,1/16W,DA,TP,1005	
R607	2007-007573	R-CHIP;330Kohm,1%,1/16W,DA,TP,1005	
R609	2007-007134	R-CHIP;39Kohm,1%,1/16W,DA,TP,1005	
R610	2007-007107	R-CHIP;100Kohm,1%,1/16W,DA,TP,1005	
R611	2007-007142	R-CHIP;10Kohm,1%,1/16W,DA,TP,1005	
R612	2007-007313	R-CHIP;6.8Kohm,1%,1/16W,DA,TP,1005	
R613	2007-000160	R-CHIP;68Kohm,5%,1/16W,DA,TP,1005	
R614	2007-000152	R-CHIP;20Kohm,5%,1/16W,DA,TP,1005	
R615	2007-000152	R-CHIP;20Kohm,5%,1/16W,DA,TP,1005	
R616	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R617	2007-000160	R-CHIP;68Kohm,5%,1/16W,DA,TP,1005	
R618	2007-000152	R-CHIP;20Kohm,5%,1/16W,DA,TP,1005	
R619	2007-000152	R-CHIP;20Kohm,5%,1/16W,DA,TP,1005	
R620	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R622	2007-000142	R-CHIP;2.7Kohm,5%,1/16W,DA,TP,1005	
R623	2007-007312	R-CHIP;20Kohm,1%,1/16W,DA,TP,1005	
R624	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R625	2007-007142	R-CHIP;10Kohm,1%,1/16W,DA,TP,1005	
R626	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	
R627	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	
R628	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	
R629	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	
R630	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	
R636	2007-000775	R-CHIP;33Kohm,5%,1/16W,DA,TP,1005	
R637	2007-000775	R-CHIP;33Kohm,5%,1/16W,DA,TP,1005	
R643	2007-000156	R-CHIP;30Kohm,5%,1/16W,DA,TP,1005	
R644	2007-000156	R-CHIP;30Kohm,5%,1/16W,DA,TP,1005	
R649	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R650	2007-001341	R-CHIP;680Kohm,5%,1/16W,DA,TP,1005	
R652	2007-000170	R-CHIP;1Mohm,5%,1/16W,DA,TP,1005	
R653	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R656	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R657	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R701	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R702	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R703	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R704	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R705	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R707	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R708	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R709	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R710	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7100	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R7101	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R7102	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7103	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7104	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7105	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
R7108	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7109	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R711	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7111	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7113	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R7114	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	

Loc. No	Part No	Desc & Spec	Remark
R7115	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1005	
R7118	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R7119	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R712	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7120	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R7121	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R7122	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7126	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R7127	2007-000170	R-CHIP;1Mohm,5%,1/16W,DA,TP,1005	
R7128	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R713	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R7130	2007-007009	R-CHIP;75OHM,5%,1/16W,DA,TP,1005	
R7131	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R7133	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R7134	2007-000174	R-CHIP;47ohm,5%,1/16W,DA,TP,1005	
R7135	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7136	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7137	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7138	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R7139	2007-001306	R-CHIP;150ohm,5%,1/16W,DA,TP,1005	
R714	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R7140	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R7141	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R7142	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R7143	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R7144	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R7145	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R7146	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R7147	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R7148	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R715	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R716	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R717	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R718	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R719	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R720	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R721	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R722	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R723	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R724	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R725	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R726	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R727	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R728	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R729	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R730	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R731	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R732	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R733	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R734	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R735	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R736	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R737	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R738	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R739	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R740	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R741	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R742	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R743	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R744	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R745	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R746	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R747	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R748	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R749	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R750	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R751	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R752	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R753	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R754	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R755	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R756	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R757	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R758	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R759	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R760	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R761	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R762	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R763	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R764	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R765	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R766	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R767	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R768	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R769	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R770	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R771	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R772	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R773	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R774	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	

Loc. No	Part No	Desc & Spec	Remark
R775	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R776	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R777	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R778	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R779	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R780	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R781	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R782	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R784	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R785	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R787	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R788	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R789	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R790	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R791	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R792	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R793	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R794	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R795	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R796	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R797	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R798	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R799	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R842	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R843	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R844	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R846	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R847	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R848	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R852	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R853	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	
R854	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R855	2007-002797	R-CHIP;560ohm,5%,1/16W,DA,TP,1005	
R856	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R857	2007-002797	R-CHIP;560ohm,5%,1/16W,DA,TP,1005	
R858	2007-000146	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1005	
R859	2007-000146	R-CHIP;6.8Kohm,5%,1/16W,DA,TP,1005	
R860	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R862	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R863	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
R864	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R865	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R866	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R868	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
R869	2007-000932	R-CHIP;470ohm,5%,1/16W,DA,TP,1005	

Loc. No	Part No	Desc & Spec	Remark
R870	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1005	
R871	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1005	
R874	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
R875	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R876	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R880	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R881	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1005	
R882	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1005	
R883	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1005	
R884	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1005	
R901	2007-008275	R-CHIP;30KOHM,1%,1/16W,DA,TP,1005	
R902	2007-007311	R-CHIP;22Kohm,1%,1/16W,DA,TP,1005	
R903	2007-007588	R-CHIP;1.8Kohm,1%,1/16W,DA,TP,1005	
R904	2007-000831	R-CHIP;39Kohm,5%,1/16W,DA,TP,1005	
R905	2007-000152	R-CHIP;20Kohm,5%,1/16W,DA,TP,1005	
R906	2007-007309	R-CHIP;12Kohm,1%,1/16W,DA,TP,1005	
R907	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R908	2007-007142	R-CHIP;10Kohm,1%,1/16W,DA,TP,1005	
R909	2007-008275	R-CHIP;30KOHM,1%,1/16W,DA,TP,1005	
R910	2007-007131	R-CHIP;13Kohm,1%,1/16W,DA,TP,1005	
R911	2007-008275	R-CHIP;30KOHM,1%,1/16W,DA,TP,1005	
R912	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R913	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R914	2007-007309	R-CHIP;12Kohm,1%,1/16W,DA,TP,1005	
R915	2007-007142	R-CHIP;10Kohm,1%,1/16W,DA,TP,1005	
R916	2007-007132	R-CHIP;15Kohm,1%,1/16W,DA,TP,1005	
R917	2007-001333	R-CHIP;18Kohm,5%,1/16W,DA,TP,1005	
R918	2007-001333	R-CHIP;18Kohm,5%,1/16W,DA,TP,1005	
R919	2007-007312	R-CHIP;20Kohm,1%,1/16W,DA,TP,1005	
R920	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R921	2007-007310	R-CHIP;8.2Kohm,1%,1/16W,DA,TP,1005	
R922	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R923	2007-007470	R-CHIP;7.5Kohm,1%,1/16W,DA,TP,1005	
R924	2007-007311	R-CHIP;22Kohm,1%,1/16W,DA,TP,1005	
R925	2007-007311	R-CHIP;22Kohm,1%,1/16W,DA,TP,1005	
R926	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R927	2007-007312	R-CHIP;20Kohm,1%,1/16W,DA,TP,1005	
R928	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R929	2007-007312	R-CHIP;20Kohm,1%,1/16W,DA,TP,1005	
R930	2007-007470	R-CHIP;7.5Kohm,1%,1/16W,DA,TP,1005	
R932	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R933	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
R934	2007-007312	R-CHIP;20Kohm,1%,1/16W,DA,TP,1005	
R935	2007-007310	R-CHIP;8.2Kohm,1%,1/16W,DA,TP,1005	
R936	2007-007142	R-CHIP;10Kohm,1%,1/16W,DA,TP,1005	

Loc. No	Part No	Desc & Spec	Remark
R937	2007-007311	R-CHIP;22Kohm,1%,1/16W,DA,TP,1005	
R940	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012	
R946	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R947	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R948	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R949	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R951	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R952	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R953	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
R954	2007-001325	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1005	
R961	2007-007138	R-CHIP;27KOHM,1%,1/16W,DA,TP,1005	
R964	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
R974	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RA01	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RA02	2007-003112	R-CHIP;27OHM,5%,1/16W,DA,TP,1005	
RA03	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RA06	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RA07	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RA11	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RA12	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RA16	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RA17	2007-000170	R-CHIP;1Mohm,5%,1/16W,DA,TP,1005	
RA18	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RA20	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RA26	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RA30	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RA31	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RA40	2007-000138	R-CHIP;100ohm,5%,1/16W,DA,TP,1005	
RA41	2007-000138	R-CHIP;100ohm,5%,1/16W,DA,TP,1005	
RA43	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RA50	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RA51	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
RA52	2007-000157	R-CHIP;47Kohm,5%,1/16W,DA,TP,1005	
RA53	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RA56	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RA58	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RA64	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RA65	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RA66	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RA67	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RA68	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RA71	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RA72	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RA75	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RA76	2007-003112	R-CHIP;27OHM,5%,1/16W,DA,TP,1005	
RA77	2007-000138	R-CHIP;100ohm,5%,1/16W,DA,TP,1005	
RA78	2007-000138	R-CHIP;100ohm,5%,1/16W,DA,TP,1005	
RA79	2007-003112	R-CHIP;27OHM,5%,1/16W,DA,TP,1005	
RA80	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RA82	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RA83	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RA84	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RA85	2007-000242	R-CHIP;1.5Kohm,5%,1/16W,DA,TP,1005	
RA87	2007-002970	R-CHIP;56OHM,5%,1/16W,DA,TP,1005	
RA88	2007-002970	R-CHIP;56OHM,5%,1/16W,DA,TP,1005	
RA90	2007-000138	R-CHIP;100ohm,5%,1/16W,DA,TP,1005	
RA91	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RA93	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RN841	2011-001393	R-NETWORK;1KOHM,5%,1/16W,L,CHIP,8P,TP	
RP01	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP02	2007-000141	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1005	
RP05	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
RP06	2007-000636	R-CHIP;270Kohm,5%,1/16W,DA,TP,1005	
RP08	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
RP09	2007-000156	R-CHIP;30Kohm,5%,1/16W,DA,TP,1005	
RP10	2007-000162	R-CHIP;100Kohm,5%,1/16W,DA,TP,1005	
RP11	2007-000164	R-CHIP;150Kohm,5%,1/16W,DA,TP,1005	
RP12	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP13	2007-000139	R-CHIP;220ohm,5%,1/16W,DA,TP,1005	
RP15	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RP16	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
RP17	2007-000164	R-CHIP;150Kohm,5%,1/16W,DA,TP,1005	
RP18	2007-007001	R-CHIP;3.9KOHM,5%,1/16W,DA,TP,1005	
RP19	2007-007001	R-CHIP;3.9KOHM,5%,1/16W,DA,TP,1005	
RP20	2007-000775	R-CHIP;33Kohm,5%,1/16W,DA,TP,1005	
RP21	2007-000153	R-CHIP;22Kohm,5%,1/16W,DA,TP,1005	
RP23	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP25	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
RP28	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP29	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP30	2007-001307	R-CHIP;180ohm,5%,1/16W,DA,TP,1005	
RP31	2007-001307	R-CHIP;180ohm,5%,1/16W,DA,TP,1005	
RP32	2007-000159	R-CHIP;56Kohm,5%,1/16W,DA,TP,1005	
RP33	2007-000159	R-CHIP;56Kohm,5%,1/16W,DA,TP,1005	
RP34	2007-000775	R-CHIP;33Kohm,5%,1/16W,DA,TP,1005	
RP36	2007-000164	R-CHIP;150Kohm,5%,1/16W,DA,TP,1005	
RP37	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP38	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP40	2007-000172	R-CHIP;10ohm,5%,1/16W,DA,TP,1005	
RP41	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	

Loc. No	Part No	Desc & Spec	Remark
RP42	2007-000148	R-CHIP;10Kohm,5%,1/16W,DA,TP,1005	
RP45	2007-000140	R-CHIP;1Kohm,5%,1/16W,DA,TP,1005	
TPR1	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
TPR4	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
TPR5	2007-000171	R-CHIP;0ohm,5%,1/16W,DA,TP,1005	
X201	2801-003703	CRYSTAL-SMD;24.576MHz,50ppm,28-ACI,12pF,	
X202	2801-003424	CRYSTAL-SMD;41.85MHZ,50ppm,28-ACC,12pF,-	
X701	2801-004258	CRYSTAL-SMD;12.500MHz,50ppm,28-ACI,10.0p	
X702	2801-003856	CRYSTAL-SMD;0.032768MHZ,20PPM,28-ACP,7PF	
XA01	2804-001309	OSCILLATOR-CLOCK;54MHZ,20PPM,10TTL & CMO	
		ASSY-FRONT BOARD	
CF01	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CN01	3710-001443	CONNECTOR-SOCKET;18P,2R,0.8mm,SMD-S,SN	
CN02	3711-000922	CONNECTOR-HEADER;BOX,4P,1R,1.25mm,SMD-A,	
LED01	0601-001774	LED-IR;SMD,5.8x6.03mm,200mW,5V,875nm,	
LED02	0601-001774	LED-IR;SMD,5.8x6.03mm,200mW,5V,875nm,	
QF01	0501-000546	TR-SMALL SIGNAL;KSA1298,PNP,200mW,SOT-23	
QF02	0504-001038	TR-DIGITAL;KRC402,NPN,100MW,10K/10K,SOT-	
RF01	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RF02	2007-000071	R-CHIP;22ohm,5%,1/16W,DA,TP,1608	
RF03	2007-000071	R-CHIP;22ohm,5%,1/16W,DA,TP,1608	
RF04	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RF05	2007-000071	R-CHIP;22ohm,5%,1/16W,DA,TP,1608	
RF06	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
REM01	AD32-00007A	MODULE REMOCON;-,KSM-603TM,37.9KHz,940nm	
		ASSY-EVF BOARD	
CE01	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CE02	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CE03	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CE04	2203-000440	C-CERAMIC,CHIP;1nF,10%,50V,X7R,TP,1608,-	
CE05	2404-000284	C-TA,CHIP;10uF,20%,16V,-,TP,3528,-	
CE07	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CE08	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CE10	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CE11	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CE12	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CE13	2203-000975	C-CERAMIC,CHIP;47nF,10%,25V,X7R,TP,1608,	
CE14	2404-000151	C-TA,CHIP;1uF,20%,16V,-,TP,3216,-	
CE15	2404-000151	C-TA,CHIP;1uF,20%,16V,-,TP,3216,-	
CE16	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CE17	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CE18	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CE19	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	

Loc. No	Part No	Desc & Spec	Remark
CE20	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CNE01	3708-001680	CONNECTOR-FPC/FFC/PIC;6P,0.5MM,SMD-A,SN	
CNE02	3708-001076	CONNECTOR-FPC/FFC/PIC;20P,0.5MM,SMD-S,SN	
DE02	0401-001054	DIODE-SWITCHING;KDS160,85V,300mA,SOD-323	
DE03	0404-000110	DIODE-SCHOTTKY;RB411D,20V,500mA,SOT-23,T	
DE04	0403-001421	DIODE-ZENER;KDZ2.7V,2.5-2.9V,150MW,SOD-3	
ICE01	1003-001373	IC-LCD DRIVER;MCVVQ111FB,LQFP,48P,276MIL	
LE01	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
LE03	2703-000397	INDUCTOR-SMD;33uH,10%,2.5x2x1.8mm	
LED01	0601-001586	LED;CHIP,WHT,-,470NM	
QE02	0501-002310	TR-SMALL SIGNAL;HN1B04FU,PNP/NPN,200mW,U	
RE01	2007-001125	R-CHIP;68Kohm,1%,1/16W,DA,TP,1608	
RE02	2007-001068	R-CHIP;6.8Kohm,1%,1/16W,DA,TP,1608	
RE05	2007-000772	R-CHIP;33Kohm,1%,1/16W,DA,TP,1608	
RE06	2007-000828	R-CHIP;39Kohm,1%,1/16W,DA,TP,1608	
RE07	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RE16	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RE17	2007-000082	R-CHIP;3.3Kohm,5%,1/16W,DA,TP,1608	
RE19	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RE21	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
RE22	2007-000075	R-CHIP;220ohm,5%,1/16W,DA,TP,1608	
RE24	2007-000084	R-CHIP;4.7Kohm,5%,1/16W,DA,TP,1608	
RE25	2007-000097	R-CHIP;47Kohm,5%,1/16W,DA,TP,1608	
RE26	2007-000125	R-CHIP;3.9Kohm,5%,1/16W,DA,TP,1608	
RE29	2007-000091	R-CHIP;12Kohm,5%,1/16W,DA,TP,1608	
RE30	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
RE31	2007-000074	R-CHIP;100ohm,5%,1/16W,DA,TP,1608	
VRE02	2104-001007	VR-SMD;10Kohm,25%,0.15W,TOP	
		ASSY-JACK BOARD	
CN801	3708-001470	CONNECTOR-FPC/FFC/PIC;38P,0.5mm,SMD-A,SN	
CN802	3708-001842	CONNECTOR-FPC/FFC/PIC;7P,0.5mm,SMD-A,TIN	
J803	3722-001741	JACK-MINI USB;5P,-,AU30U,BLK,-	
J801	3722-001435	JACK-PHONE;4P,3.6PI,AG,RED,-	
J802	AD97-04962A	ASSY-A/V JACK;8P,ALPHA-PJ,A/V JACK 8P	
J804	AD37-00001A	JACK;-,IEEE1394 HEADER 4P,1,-,-	
J805	3722-001737	JACK-PHONE;4P,3.6PI,AG,GRN,-	
J806	AD97-04964A	ASSY-DC JACK;3P,ALPHA-PJ,DDAE-0174	
		ASSY-LCD BOARD	
CL103	2301-001108	C-FILM,CHIP;22nF,5%,50V,TP,3.2x2.5x1.4,3	
CL104	2203-005040	C-CERAMIC,CHIP;0.012nF,5%,3kV,NP0,TP,452	
CL105	2404-001131	C-TA,CHIP;22UF,10%,10V,GP,TP,3528	
CL106	2404-001131	C-TA,CHIP;22UF,10%,10V,GP,TP,3528	
CL107	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	

Loc. No	Part No	Desc & Spec	Remark
CL108	2404-001131	C-TA,CHIP;22UF,10%,10V,GP,TP,3528	
CL109	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL110	2203-005774	C-CERAMIC,CHIP;1000nF,+80-20%,50V,Y5V,TP	
CL111	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL112	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL115	2404-000284	C-TA,CHIP;10uF,20%,16V,-,TP,3528,-	
CL116	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL118	2203-005887	C-CERAMIC,CHIP;680NF,+80-20%,10V,Y5V,TP,	
CL119	2203-005887	C-CERAMIC,CHIP;680NF,+80-20%,10V,Y5V,TP,	
CL120	2203-005887	C-CERAMIC,CHIP;680NF,+80-20%,10V,Y5V,TP,	
CL121	2404-001131	C-TA,CHIP;22UF,10%,10V,GP,TP,3528	
CL123	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL124	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CL125	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL126	2203-005887	C-CERAMIC,CHIP;680NF,+80-20%,10V,Y5V,TP,	
CL127	2203-000257	C-CERAMIC,CHIP;10nF,10%,50V,X7R,TP,1608	
CL128	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL129	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL130	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL132	2203-005065	C-CERAMIC,CHIP;1000nF,+80-20%,10V,Y5V,TP	
CL133	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL134	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CL135	2203-001103	C-CERAMIC,CHIP;6.8nF,10%,50V,X7R,TP,1608	
CL136	2404-000335	C-TA,CHIP;3.3uF,20%,16V,GP,TP,3216	
CL137	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL140	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CL141	2404-001020	C-TA,CHIP;10uF,20%,10V,GP,TP,3216,3.2	
CNL101	3708-001651	CONNECTOR-FPC/FFC/PIC;20P,0.5MM,SMD-A,-	
CNL301	3708-001652	CONNECTOR-FPC/FFC/PIC;24P,0.5MM,SMD-A,-	
DL102	0403-001422	DIODE-ZENER;KDZ4.3V,4.0-4.5V,150MW,SOD-3	
DL103	0403-001421	DIODE-ZENER;KDZ2.7V,2.5-2.9V,150MW,SOD-3	
ICL101	1003-001534	IC-LCD DRIVER;CXA3582R,LQFP,48P,7X7MM,-,	
ICL202	1103-001133	IC-EEPROM;24C020,256x8BIT,SOP,8P,150MIL,	
LED01	0601-001097	LED;CHIP,GRN,1.6x1.4mm,560nm	
LL101	2703-000398	INDUCTOR-SMD;10uH,10%,3.2x2.5x2.2mm	
LL102	2703-002271	INDUCTOR-SMD;100UH,-,5.5X5.5X2MM	
LL103	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LL104	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
LL105	2703-000396	INDUCTOR-SMD;10uH,10%,2.5x2x1.8mm	
QL101	0504-001037	TR-DIGITAL;KRC401,NPN,100MW,4.7K/4.7K,SO	
QL102	0502-001221	TR-POWER;CPH3209,NPN,900MW,CPH3,TP,200-	
QL103	0502-001221	TR-POWER;CPH3209,NPN,900MW,CPH3,TP,200-	
QL104	0501-002311	TR-SMALL SIGNAL;HN2A01FU,PNP,200mW,UMD6,	
QL105	0501-000225	TR-SMALL SIGNAL;2SC4617,NPN,200mW,EM3,TP	
QL106	0501-000552	TR-SMALL SIGNAL;2SA1774-Q,PNP,150mW,EM3,	
QL107	0501-000552	TR-SMALL SIGNAL;2SA1774-Q,PNP,150mW,EM3,	
QL108	0501-000225	TR-SMALL SIGNAL;2SC4617,NPN,200mW,EM3,TP	
QL120	0504-001037	TR-DIGITAL;KRC401,NPN,100MW,4.7K/4.7K,SO	
RL104	2007-000516	R-CHIP;2.7Kohm,1%,1/16W,DA,TP,1608	
RL105	2007-000516	R-CHIP;2.7Kohm,1%,1/16W,DA,TP,1608	
RL106	2007-000092	R-CHIP;15Kohm,5%,1/16W,DA,TP,1608	
RL107	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RL108	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RL109	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RL111	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RL112	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608	
RL113	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608	
RL114	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608	
RL115	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608	
RL116	2007-000309	R-CHIP;10ohm,5%,1/16W,DA,TP,1608	
RL117	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RL118	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RL119	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RL124	2007-000939	R-CHIP;47Kohm,1%,1/16W,DA,TP,1608	
RL125	2007-000090	R-CHIP;10KOHM,5%,1/16W,DA,TP,1608	
RL126	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
RL131	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RL132	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RL133	2007-000094	R-CHIP;22Kohm,5%,1/16W,DA,TP,1608	
RL135	2007-000078	R-CHIP;1Kohm,5%,1/16W,DA,TP,1608	
RL136	2007-000124	R-CHIP;2.2Kohm,5%,1/16W,DA,TP,1608	
RL137	2007-000116	R-CHIP;120ohm,5%,1/16W,DA,TP,1608	
TL103	2601-001090	TRANS-SMD,PULSE;100MH,760,-,10.1X10.1X2.	
		ASSY-FUNCTION BOARD	
CF101	2203-000189	C-CERAMIC,CHIP;100nF,+80-20%,25V,Y5V,TP,	
CNF101	3708-001470	CONNECTOR-FPC/FFC/PIC;38P,0.5mm,SMD-A,SN	
CNF102	3708-001669	CONNECTOR-FPC/FFC/PIC;21P,0.5MM,SMD-A,SN	
CNF103	3709-001214	CONNECTOR-CARD EDGE;10P,1.5MM,SMD-A,AUF	
CNF104	3711-000541	CONNECTOR-HEADER;BOX,2P,1R,1.25MM,SMD-A,	
RF101	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	
RF102	2007-000651	R-CHIP;27Kohm,1%,1/16W,DA,TP,1608	
RF103	2007-000828	R-CHIP;39Kohm,1%,1/16W,DA,TP,1608	
RF104	2007-001206	R-CHIP;82Kohm,1%,1/16W,DA,TP,1608	
RF105	2007-000633	R-CHIP;270Kohm,1%,1/16W,DA,TP,1608	
RF106	2007-000077	R-CHIP;470ohm,5%,1/16W,DA,TP,1608	
RF107	2007-000651	R-CHIP;27Kohm,1%,1/16W,DA,TP,1608	
RF108	2007-000102	R-CHIP;100Kohm,5%,1/16W,DA,TP,1608	
SWF101	3404-000119	SWITCH-TACT;12V,50mA,100gf,5.2x5.2x0.8mm	
SWF102	3404-000119	SWITCH-TACT;12V,50mA,100gf,5.2x5.2x0.8mm	

Loc. No	Part No	Desc & Spec	Remark
SWF103	3404-000119	SWITCH-TACT;12V,50mA,100gf,5.2x5.2x0.8mm	
SWF104	3404-000119	SWITCH-TACT;12V,50mA,100gf,5.2x5.2x0.8mm	
SWF105	3404-000119	SWITCH-TACT;12V,50mA,100gf,5.2x5.2x0.8mm	
SWF106	3404-000119	SWITCH-TACT;12V,50mA,100gf,5.2x5.2x0.8mm	
SWF107	3404-000119	SWITCH-TACT;12V,50mA,100gf,5.2x5.2x0.8mm	
SWF108	3409-001164	SWITCH-DETECTOR;DC 5V,1mA,-,50gf,PUSH ON	
SWF109	3403-001084	SWITCH-PUSH;DC5V,1 MA,-,ON-OFF,-	
		ADAPTOR-AC POWER;100/240V,50HZ/60HZ,-,-,	
C10	2203-000455	C-CERAMIC,CHIP;1NF,5%,50V,C0G,TP,2012	
C11	2301-001092	C-FILM,MPEF;100nF,20%,275V,BK,18x6x12,15	
C12	2401-003302	C-AL;47uF,20%,400V,GP,TP,18X31.5,7.	
C13	2401-003046	C-AL;47uF,20%,50V,WT,TP,6.3x11,2.5	
C14	2203-000716	C-CERAMIC,CHIP;3.3nF,10%,50V,X7R,TP,2012	
C15	2203-000716	C-CERAMIC,CHIP;3.3nF,10%,50V,X7R,TP,2012	
C16	2203-000716	C-CERAMIC,CHIP;3.3nF,10%,50V,X7R,TP,2012	
C30	2201-000828	C-CERAMIC,DISC;3.3NF,20%,400V,Y5U,TP,15X	
C50	2401-000133	C-AL;1000uF,20%,16V,GP,TP,10x20,5	
C51	2401-000037	C-AL;470uF,20%,16V,GP,TP,8x11.5,5	
C55	2203-000239	C-CERAMIC,CHIP;0.1NF,5%,50V,C0G,TP,2012	
C57	2203-002793	C-CERAMIC,CHIP;1000nF,+80-20%,25V,Y5V,TP	
C58	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
C59	2203-000938	C-CERAMIC,CHIP;0.47NF,5%,50V,C0G,TP,2012	
C61	2203-000192	C-CERAMIC,CHIP;100nF,+80-20%,50V,Y5V,TP,	
C62	2401-000438	C-AL;10uF,20%,25V,GP,-,5x11,2mm	
C63	2203-000455	C-CERAMIC,CHIP;1NF,5%,50V,C0G,TP,2012	
CON1	3721-001034	PLUG-AC POWER;2P,-,-,NI	
CON2	3711-000900	CONNECTOR-HEADER;BOX,3P,1R,2.5mm,STRAIGH	
D10	0402-000137	DIODE-RECTIFIER;1N4007,1000V,1A,DO-41,TP	
D11	0402-000137	DIODE-RECTIFIER;1N4007,1000V,1A,DO-41,TP	
D12	0402-000137	DIODE-RECTIFIER;1N4007,1000V,1A,DO-41,TP	
D13	0402-000137	DIODE-RECTIFIER;1N4007,1000V,1A,DO-41,TP	
D14	0402-001041	DIODE-RECTIFIER;ERA22-10,1000V,500mA,MSR	
D15	0402-001041	DIODE-RECTIFIER;ERA22-10,1000V,500mA,MSR	
D50	0402-001062	DIODE-RECTIFIER;SF10SC9,90V,10A,FTO-220,	
D52	0407-000116	DIODE-ARRAY;DAP202K,80V,100mA,CK2-3,SOT-	
D53	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	
D54	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	
D55	0407-000114	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	
F10	3601-000207	FUSE-CARTRIDGE;250V,1A,TIME-LAG,GLASS,5.	
IC10	1203-002180	IC-PWM CONTROLLER;5M0265,TO220F-4L,4P,39	
IC50	AC14-12006D	IC;KA431Z,TO-92,TAPING	
IC51	AC14-12001K	IC;KA324,-,-	
J10	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J11	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J50	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012	
J51	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J52	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J53	2007-000029	R-CHIP;0OHM,5%,1/10W,DA,TP,2012	
J55	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J56	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J57	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
J61	AC38-12001U	WIRE-JUMPER(H-WRAP);1007#26,120M/M	
L50	AC27-12001N	COIL CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-	
LF10	AC27-32001F	COIL-LINE FILTER;BSF-2123,20MH,2OHM,ST,-	
PC10	0604-000119	PHOTO-COUPLER;TR,200-400%,200mW,DIL-4,ST	
Q52	0501-000457	TR-SMALL SIGNAL;MMBT2222A,NPN,350MW,SOT-	
R00	2007-000477	R-CHIP;1MOHM,5%,1/10W,DA,TP,2012	
R10	2007-000481	R-CHIP;1MOHM,5%,1/8W,DA,TP,3216	
R11	2007-000481	R-CHIP;1MOHM,5%,1/8W,DA,TP,3216	
R13	2003-000771	R-METAL OXIDE(S);68Kohm,5%,2W,AA,TP,4x12	
R14	2007-000598	R-CHIP;22OHM,5%,1/8W,DA,TP,3216	
R15	2007-000768	R-CHIP;330OHM,5%,1/8W,DA,TP,3216	
R16	2007-000768	R-CHIP;330OHM,5%,1/8W,DA,TP,3216	
R17	2007-001212	R-CHIP;82KOHM,5%,1/8W,DA,TP,3216	
R18	2007-001212	R-CHIP;82KOHM,5%,1/8W,DA,TP,3216	
R19	2007-001212	R-CHIP;82KOHM,5%,1/8W,DA,TP,3216	
R20	2007-001212	R-CHIP;82KOHM,5%,1/8W,DA,TP,3216	
R21	2001-000374	R-CARBON;15OHM,5%,1/4W,AA,TP,2.4X6.4MM	
R30	2001-000739	R-CARBON;4.7MOHM,5%,1/8W,AA,TP,1.8X3.2M	
R30	2201-001005	C-CERAMIC,DISC;2.2NF,20%,400V,Y5U,TP,11X	
R30A	2201-001005	C-CERAMIC,DISC;2.2NF,20%,400V,Y5U,TP,11X	
R50	2007-000472	R-CHIP;1KOHM,5%,1/8W,DA,TP,3216	
R51	2007-000472	R-CHIP;1KOHM,5%,1/8W,DA,TP,3216	
R53	2007-000868	R-CHIP;4.7KOHM,1%,1/10W,DA,TP,2012	
R54	2007-000868	R-CHIP;4.7KOHM,1%,1/10W,DA,TP,2012	
R55	2007-000312	R-CHIP;10OHM,5%,1/8W,DA,TP,3216	
R57	2007-000938	R-CHIP;47KOHM,1%,1/10W,DA,TP,2012	
R58	2007-001205	R-CHIP;82KOHM,1%,1/10W,DA,TP,2012	
R59	2007-000868	R-CHIP;4.7KOHM,1%,1/10W,DA,TP,2012	
R60	2007-000771	R-CHIP;33KOHM,1%,1/10W,DA,TP,2012	
R61	2007-000395	R-CHIP;150KOHM,5%,1/10W,DA,TP,2012	
R62	2007-001039	R-CHIP;56KOHM,5%,1/10W,DA,TP,2012	
R63	2007-000290	R-CHIP;100OHM,5%,1/10W,DA,TP,2012	
R64	2007-001205	R-CHIP;82KOHM,1%,1/10W,DA,TP,2012	
R65	2007-000868	R-CHIP;4.7KOHM,1%,1/10W,DA,TP,2012	
R66	2007-000406	R-CHIP;15KOHM,1%,1/10W,DA,TP,2012	
R68	2007-000572	R-CHIP;220OHM,5%,1/10W,DA,TP,2012	
R70	2007-000546	R-CHIP;20KOHM,5%,1/10W,DA,TP,2012	

Loc. No	Part No	Desc & Spec	Remark
R71	2007-000300	R-CHIP;10KOHM,5%,1/10W,DA,TP,2012	
R72	2007-000582	R-CHIP;22KOHM,1%,1/10W,DA,TP,2012	
R74	2007-001205	R-CHIP;82KOHM,1%,1/10W,DA,TP,2012	
R76	2005-000102	R-WIRE WOUND;0.1ohm,1%,1W,AA,TP,4.5x11mm	
R77	2007-000068	R-CHIP;470KOHM,5%,1/10W,DA,TP,2012	
R79	2007-001067	R-CHIP;6.8KOHM,1%,1/10W,DA,TP,2012	
R80	2007-000477	R-CHIP;1MOHM,5%,1/10W,DA,TP,2012	
T10	AD26-00026A	TRANS POWER;AA-E6,AA-E6,1.4mH,6P,100~260	
VR50	2101-001049	VR-ROTARY;500ohm,-,-,-	

3. Schematic Diagrams

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Note

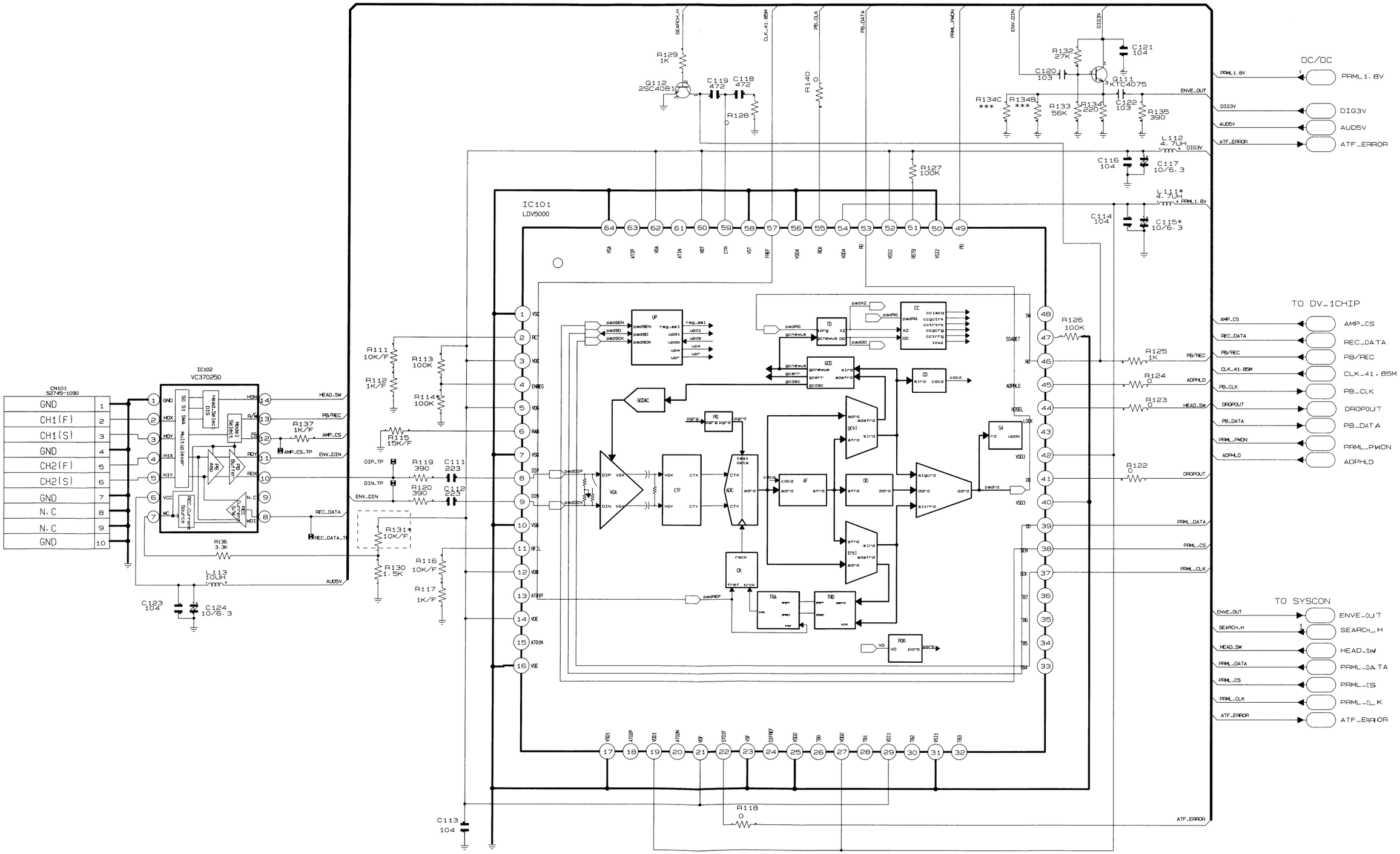
For schematic Diagram
- Resistors are in ohms, 1/8W unless otherwise noted.
- Circled numbers refer to waveforms.

Special note :
Most semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

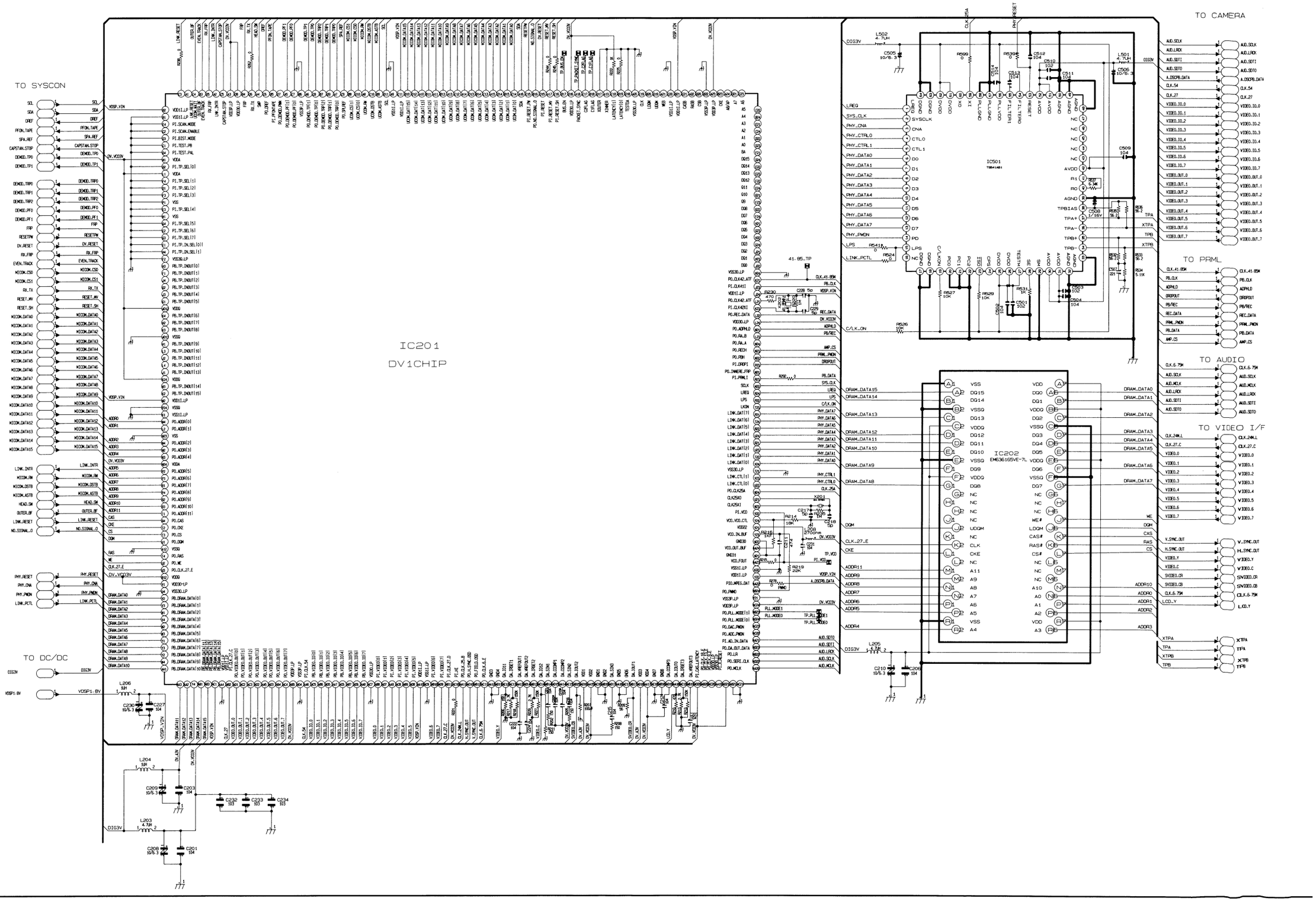
Note :
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list (may be slightly different or amended since this drawing was prepared).

Important safety notices :
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components. Use only the same type.

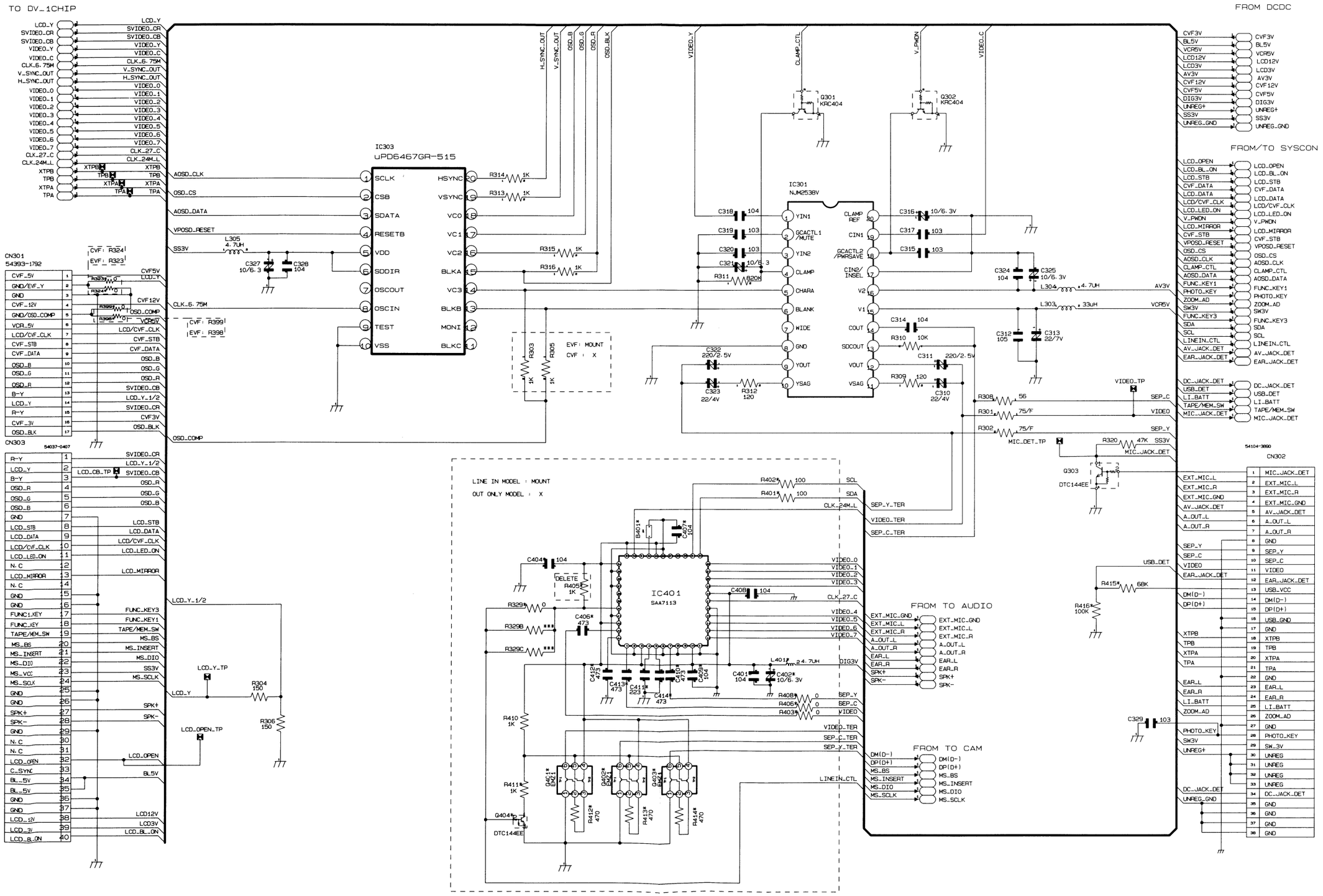
3-1 PRE AMP/PRML



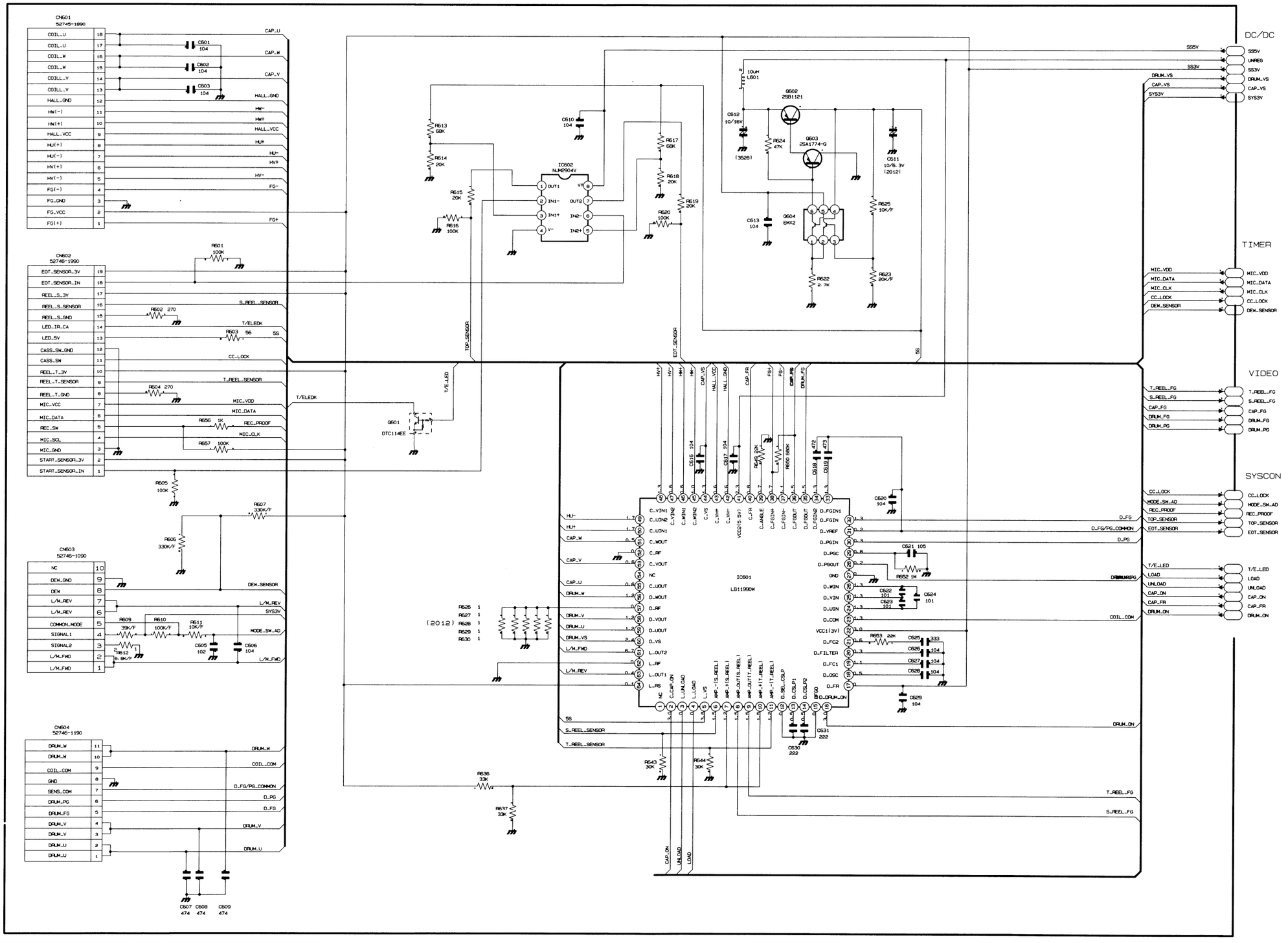
3-2 DV 1 CHIP


IC201
DV1CHIP
TO SYSCON
TO DC/DC
TO CAMERA
TO PRML
TO AUDIO
TO VIDEO I/F
IC501
IC202
EM636165VE-7L

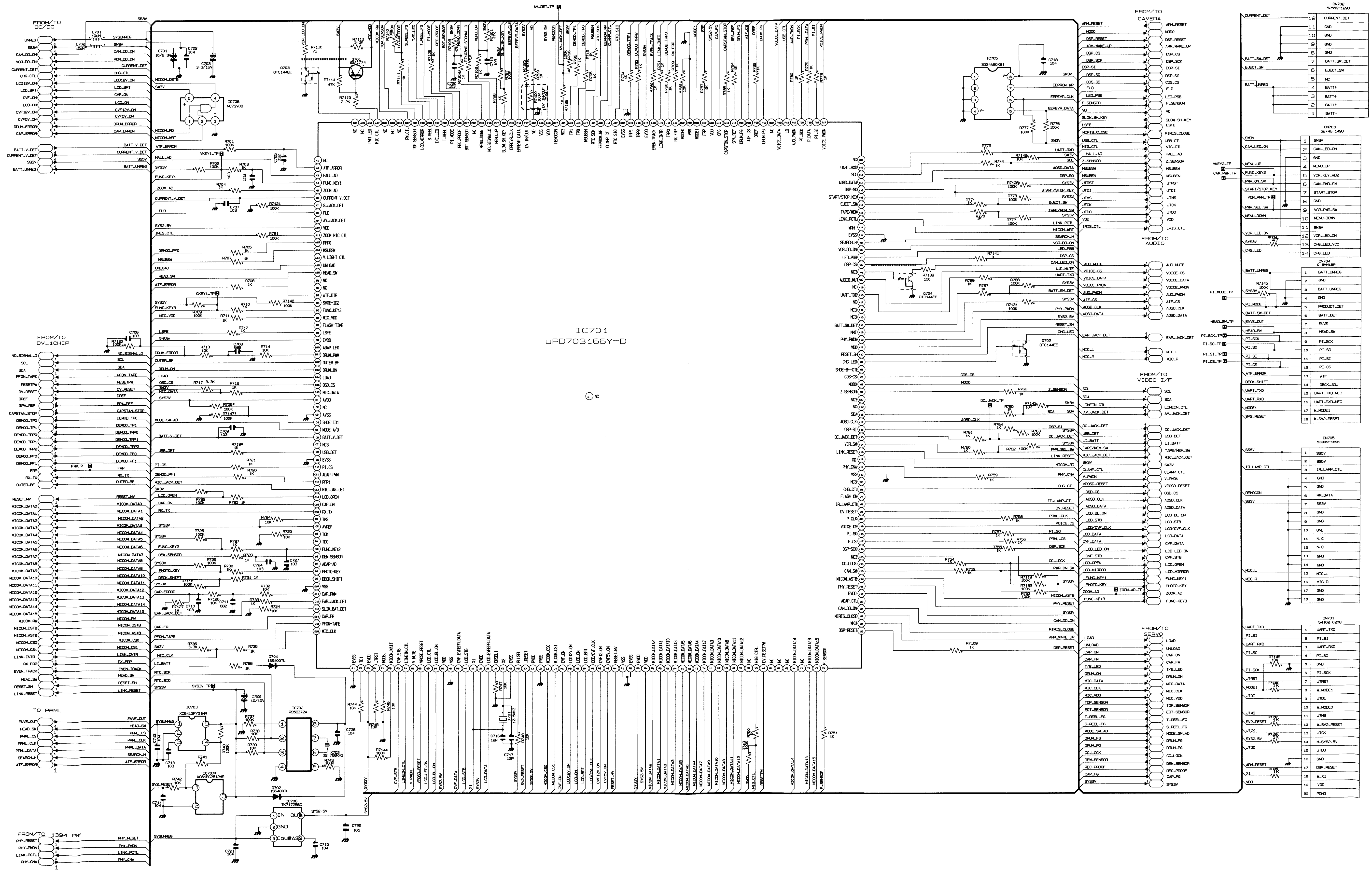
3-3 VIDEO I/F


TO DV_1CHIP
FROM DCDC
FROM/TO SYSCON
IC303
uPD6467GR-515
IC301
NJM2538V
IC401
SAA7113
Q301
KRC404
Q302
KRC404
CN301
54393-1792
CN303
54037-0407
CN302
54104-3690
LINE IN MODEL : MOUNT
OUT ONLY MODEL : X
EVF : MOUNT
CVF : X
DELETE
FROM TO AUDIO
FROM TO CAM
AOSD_CLK
OSD_CS
AOSD_DATA
VPOSD_RESET
SS3V
CLK_6.75M
OSD_COMP
H_SYNC_OUT
V_SYNC_OUT
OSD_B
OSD_G
OSD_R
OSD_BLK
VIDEO_Y
CLAMP_CTL
V_PWDN
VIDEO_C
LCD_Y
SVIDEO_CR
SVIDEO_CB
VIDEO_Y
VIDEO_C
CLK_6.75M
V_SYNC_OUT
H_SYNC_OUT
VIDEO_0
VIDEO_1
VIDEO_2
VIDEO_3
VIDEO_4
VIDEO_5
VIDEO_6
VIDEO_7
CLK_27_C
CLK_24M_L
XTPB
TPB
XTPA
TPA
LCD_Y_1/2
LCD_CB_TP
LCD_Y_TP
LCD_OPEN_TP
MIC_DET_TP
LCD_Y
LCD_OPEN
SCLK
CSB
SDATA
RESETB
VDD
SDDIR
OSCOUT
OSCIN
TEST
VSS
HSYNC
VSYNC
VCO
VC1
VC2
BLKA
VC3
BLKB
MONI
BLKC
YIN1
GCACTL1 /MUTE
YIN2
CLAMP
CHARA
BLANK
WIDE
GND
YOUT
YSAG
CLAMP REF
CIN1
GCACTL2 /PWRSAVE
CIN2/ INSEL
V2
V1
COUT
SDCOUT
VOUT
VSAG
SCL
SDA
CLK_24M_L
SEP_Y_TER
VIDEO_TER
SEP_C_TER
LINEIN_CTL
DIG3V
AV3V
VCR5V
SEP_C
VIDEO
SEP_Y
USB_DET
EXT_MIC_L
EXT_MIC_R
EXT_MIC_GND
AV_JACK_DET
A_OUT_L
A_OUT_R
DM(D-)
DP(D+)
MS_BS
MS_INSERT
MS_DIO
MS_SCLK
CVF3V
BL5V
VCR5V
LCD12V
LCD3V
AV3V
CVF12V
CVF5V
DIG3V
UNREG+
SS3V
UNREG_GND
LCD_OPEN
LCD_BL_ON
LCD_STB
CVF_DATA
LCD_DATA
LCD/CVF_CLK
LCD_LED_ON
V_PWDN
LCD_MIRROR
CVF_STB
VPOSD_RESET
OSD_CS
AOSD_CLK
CLAMP_CTL
AOSD_DATA
FUNC_KEY1
PHOTO_KEY
ZOOM_AD
SW3V
FUNC_KEY3
SDA
SCL
LINEIN_CTL
AV_JACK_DET
EAR_JACK_DET
DC_JACK_DET
USB_DET
LI_BATT
TAPE/MEM_SW
MIC_JACK_DET
PHOTO_KEY
SW3V
UNREG
DC_JACK_DET
UNREG_GND
GND
SPK+
SPK-
LCD_BL_ON
LCD_LED_ON
LCD_MIRROR
FUNC_KEY3
FUNC_KEY1
TAPE/MEM_SW
MS_BS
MS_INSERT
MS_DIO
MS_SCLK
LCD_OPEN
BL5V
LCD12V
LCD3V
LCD_BL_ON
C_SYNC
LCD_12V
LCD_3V
N.C
EAR_L
EAR_R
LI_BATT
ZOOM_AD
SEP_Y
SEP_C
VIDEO
EAR_JACK_DET
DM(D-)
DP(D+)
USB_VCC
USB_GND
MIC_JACK_DET
EXT_MIC_L
EXT_MIC_R
EXT_MIC_GND
AV_JACK_DET
A_OUT_L
A_OUT_R
SEP_Y
SEP_C
VIDEO
EAR_JACK_DET
USB_VCC
DM(D-)
DP(D+)
USB_GND
XTPB
TPB
XTPA
TPA
EAR_L
EAR_R
LI_BATT
ZOOM_AD
PHOTO_KEY
SW3V
UNREG+
UNREG
UNREG
UNREG
UNREG
DC_JACK_DET
UNREG_GND
GND
GND
GND
GND

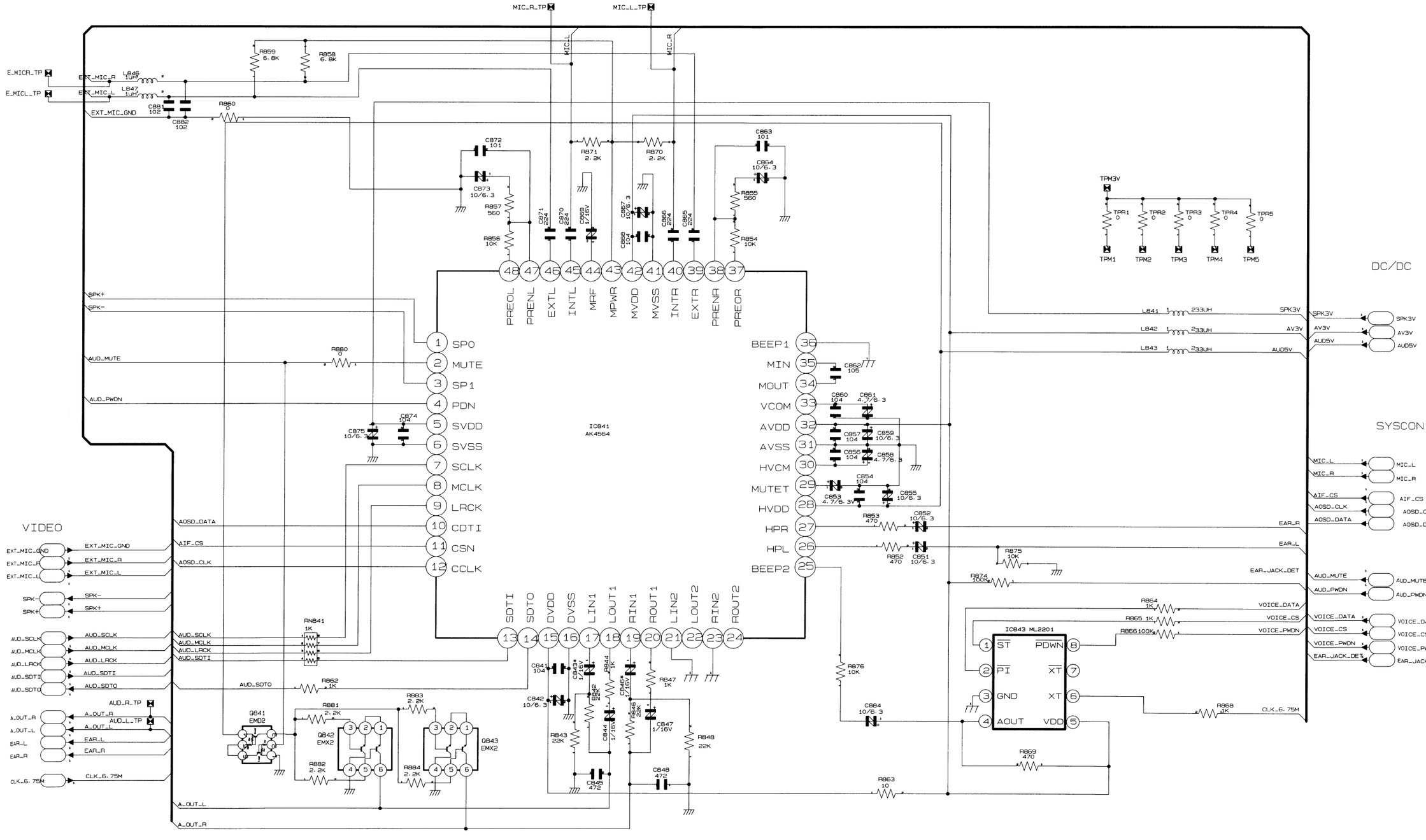
3-4 SERVO


CN501
52745-1090
COIL_U
COIL_U
COIL_W
COIL_W
COIL_V
COIL_V
HALL_GND
HW(-)
HW(+)
HALL_VCC
HU(+)
HU(-)
HV(+)
HV(-)
FG(-)
FG_GND
FG_VCC
FG(+)
CAP_U
CAP_W
CAP_V
HALL_GND
HW-
HW+
HALL_VCC
HU+
HU-
HV+
HV-
FG-
FG+
C501 104
C502 104
C503 104
CN502
52746-1990
EOT_SENSOR_3V
EOT_SENSOR_IN
REEL_S_3V
REEL_S_SENSOR
REEL_S_GND
LED_IR_CA
LED_5V
CASS_SW_GND
CASS_SW
REEL_T_3V
REEL_T_SENSOR
REEL_T_GND
MIC_VCC
MIC_DATA
REC_SW
MIC_SCL
MIC_GND
START_SENSOR_3V
START_SENSOR_IN
R601 100K
R602 270
R603 56
R604 270
R605 100K
R606 330K/F
R607 330K/F
R656 1K
R657 100K
S_REEL_SENSOR
T/ELEDK
CC_LOCK
T_REEL_SENSOR
MIC_VDD
MIC_DATA
REC_PROOF
MIC_CLK
CN503
52746-1090
NC
DEW_GND
DEW
L/M_REV
L/M_REV
COMMON_MODE
SIGNAL1
SIGNAL2
L/M_FWD
L/M_FWD
R609 39K/F
R610 100K/F
R611 10K/F
R612 6.8K/F
C505 102
C506 104
DEW_SENSOR
L/M_REV
SYS3V
MODE_SW_AD
L/M_FWD
CN504
52746-1190
DRUM_W
DRUM_W
COIL_COM
GND
SENS_COM
DRUM_PG
DRUM_FG
DRUM_V
DRUM_V
DRUM_U
DRUM_U
C507 474
C508 474
C509 474
DRUM_W
COIL_COM
D_FG/PG_COMMON
D_PG
D_FG
DRUM_V
DRUM_U
R613 68K
R614 20K
R615 20K
R616 100K
C610 104
IC602
NJM2904V
OUT1
IN1-
IN1+
V-
VH
OUT2
IN2-
IN2+
R617 68K
R618 20K
R619 20K
R620 100K
L601 10uH
Q602 2SB1121
C612 10/16V
(3528)
R624 47K
Q603 2SA1774-Q
C611 10/6.3V (2012)
C613 104
Q604 EMX2
R625 10K/F
R622 2.7K
R623 20K/F
TOP_SENSOR
EOT_SENSOR
5S
T/E_LED
Q601 DTC114EE
IC601
LB11990M
HV+
HV-
HW+
HW-
CAP_VS
HALL_VCC
HALL_GND
CAP_FR
FG+
FG-
CAP_FG
DRUM_FG
C615 104
C616 104
C617 104
R648 22K
R650 680K
C618 472
C619 473
C620 104
C_VIN1
C_VIN2
C_WIN1
C_WIN2
C_VS
C_W+
C_W-
VCC(15.5V)
C_FR
C_ANGLE
C_FGIN+
C_FGIN-
C_FGOUT
D_FGOUT2
D_FGOUT1
C_UIN2
C_UIN1
C_WOUT
C_RF
C_VOUT
C_UOUT
D_WOUT
D_RF
D_VOUT
D_UOUT
D_VS
L_OUT2
L_RF
L_OUT1
L_RS
D_FGIN1
D_FGIN2
D_VREF
D_PGIN
D_PGC
D_PGOUT
GND
D_WIN
D_VIN
D_UIN
D_COM
VCC1(3V)
D_FC2
D_FILTER
D_FC1
D_OSC
D_FR
NC
C_CAP_ON
L_UN_LOAD
L_LOAD
L_VS
AMP-(1S_REEL)
AMP+(1S_REEL)
AMP-(OUT1S_REEL)
AMP+(1T_REEL)
AMP-(1T_REEL)
D_SEL_CSLP
D_CSLP1
D_CSLP2
D_DRUM_ON
C621 105
R652 1M
C622 101
C623 101
C624 101
R653 22K
C625 333
C626 104
C627 104
C628 104
C629 104
C630 222
C631 222
R626 1
R627 1
R628 1
R629 1
R630 1
(2012)
R636 33K
R637 33K
R643 30K
R644 30K
CAP_ON
UN_LOAD
LOAD
DRUM_ON
T_REEL_FG
S_REEL_FG
D_FG
D_FG/PG_COMMON
D_PG
COIL_COM
DC/DC
SS5V
UNREG
SS3V
DRUM_VS
CAP_VS
SYS3V
TIMER
MIC_VDD
MIC_DATA
MIC_CLK
CC_LOCK
DEW_SENSOR
VIDEO
T_REEL_FG
S_REEL_FG
CAP_FG
DRUM_FG
DRUM_PG
SYSCON
CC_LOCK
MODE_SW_AD
REC_PROOF
TOP_SENSOR
EOT_SENSOR
T/E_LED
LOAD
UNLOAD
CAP_ON
CAP_FR
DRUM_ON

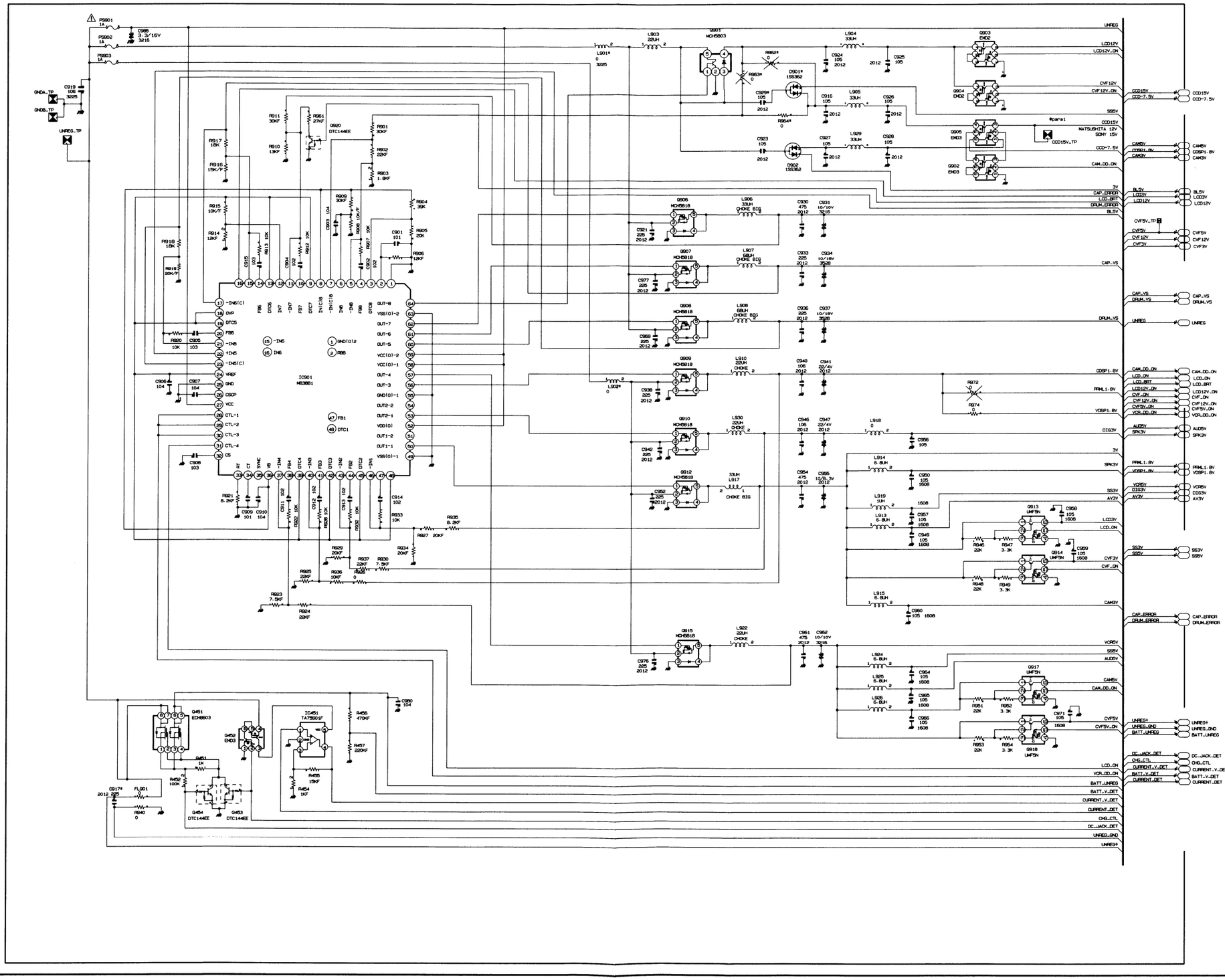
3-5 SYSCON


FROM/TO DC/DC
FROM/TO DV_1CHIP
TO PRML
FROM/TO 1394 PHY
IC701
uPD703166Y-D
IC708 NC7SV08
IC703 XC6413FY01MR
IC702 RS5C372A
IC707* XC61FC2512MR
IC706 TK71725SC
IC705 S524AB0X91
Q701 2SA1774
Q702 DTC144EE
Q703 DTC144EE
Q704 DTC144EE
X701 12.5MHZ
X702 32.768KHz
D701 1SS400TL
D702 1SS400TL
AV_DET_TP
FROM/TO CAMERA
FROM/TO AUDIO
FROM/TO VIDEO I/F
FROM/TO SERVO
CN702 52559-1290
CN703 52746-1490
CN704 0.8MM18P
CN705 53309-1891
CN701 54102-0208

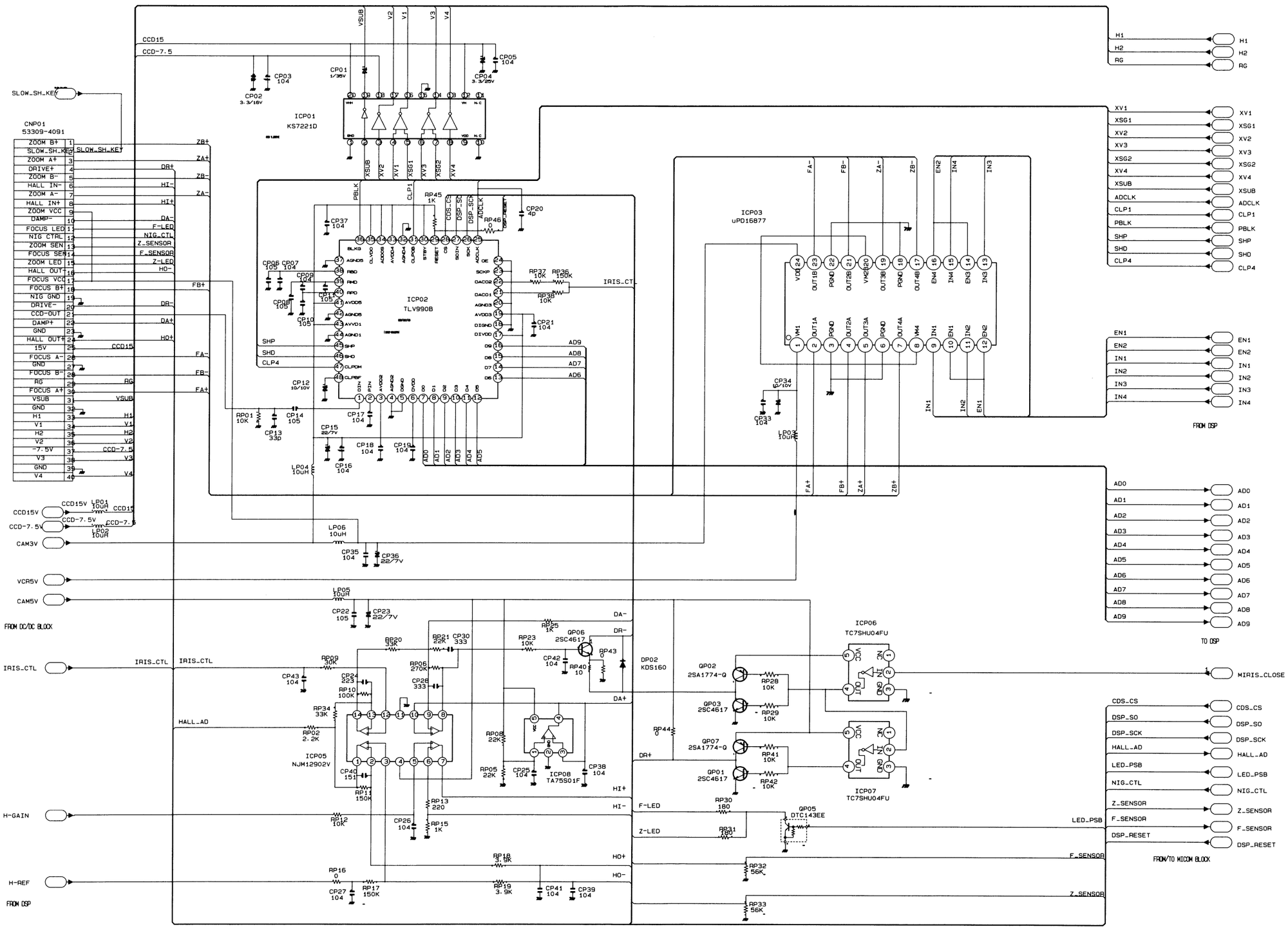
3-6 AUDIO


MIC_R_TP
MIC_L_TP
E_MICR_TP
E_MICL_TP
EXT_MIC_R
EXT_MIC_L
EXT_MIC_GND
L846 1uH
L847 1uH
R859 6.8K
R858 6.8K
R850 0
C881 102
C882 102
C872 101
C873 10/6.3
R857 560
R856 10K
C871 224
C870 224
C869 154
C868 104
C867 10/6.3
C866 224
C865 224
R871 2.2K
R870 2.2K
C863 101
C864 10/6.3
R855 560
R854 10K
48 47 46 45 44 43 42 41 40 39 38 37
PREOL PRENL EXTL INTL MRF MPWR MVDD MVSS INTR EXTR PRENR PREOR
SPK+
SPK-
AUD_MUTE
AUD_PWDN
R880 0
C874 104
C875 10/6.3
1 SPO
2 MUTE
3 SP1
4 PDN
5 SVDD
6 SVSS
7 SCLK
8 MCLK
9 LRCK
10 CDTI
11 CSN
12 CCLK
IC841 AK4564
BEEP1 36
MIN 35
MOUT 34
VCOM 33
AVDD 32
AVSS 31
HVCM 30
MUTET 29
HVDD 28
HPR 27
HPL 26
BEEP2 25
C862 105
C860 104
C861 4.7/6.3
C857 104
C859 10/6.3
C856 104
C858 4.7/6.3
C854 104
C853 4.7/6.3V
C855 10/6.3
R853 470
C852 10/6.3
R852 470
C851 10/6.3
TPM3V
TPR1 0
TPR2 0
TPR3 0
TPR4 0
TPR5 0
TPM1 TPM2 TPM3 TPM4 TPM5
DC/DC
L841 33UH
L842 33UH
L843 33UH
SPK3V
AV3V
AUD5V
SYSCON
MIC_L
MIC_R
AIF_CS
AOSD_CLK
AOSD_DATA
EAR_R
EAR_L
EAR_JACK_DET
AUD_MUTE
AUD_PWDN
VOICE_DATA
VOICE_CS
VOICE_PWDN
EAR_JACK_DET
VIDEO
EXT_MIC_GND
EXT_MIC_R
EXT_MIC_L
SPK-
SPK+
AUD_SCLK
AUD_MCLK
AUD_LRCK
AUD_SDTI
AUD_SDTO
AUD_R_TP
AUD_L_TP
A_OUT_R
A_OUT_L
EAR_L
EAR_R
CLK_6.75M
RN841 1K
R862 1K
Q841 EMD2
R881 2.2K
R882 2.2K
R883 2.2K
R884 2.2K
Q842 EMX2
Q843 EMX2
SDTI SDTO DVDD DVSS LIN1 LOUT1 RIN1 ROUT1 LIN2 LOUT2 RIN2 ROUT2
13 14 15 16 17 18 19 20 21 22 23 24
C841 104
C842 10/6.3
C843* 1/16V
C844 1/16V
R842 22K
R844 1K
R843 22K
C845* 1/16V
R845 22K
R847 1K
C847 1/16V
R848 22K
C848 472
C845 472
R876 10K
C884 10/6.3
R863 10
IC843 ML2201
ST PDWN
PI XT
GND XT
AOUT VDD
1 2 3 4 8 7 6 5
R875 10K
R874 100K
R864 1K
R865 1K
R866 100K
R868 1K
R869 470
CLK_6.75M

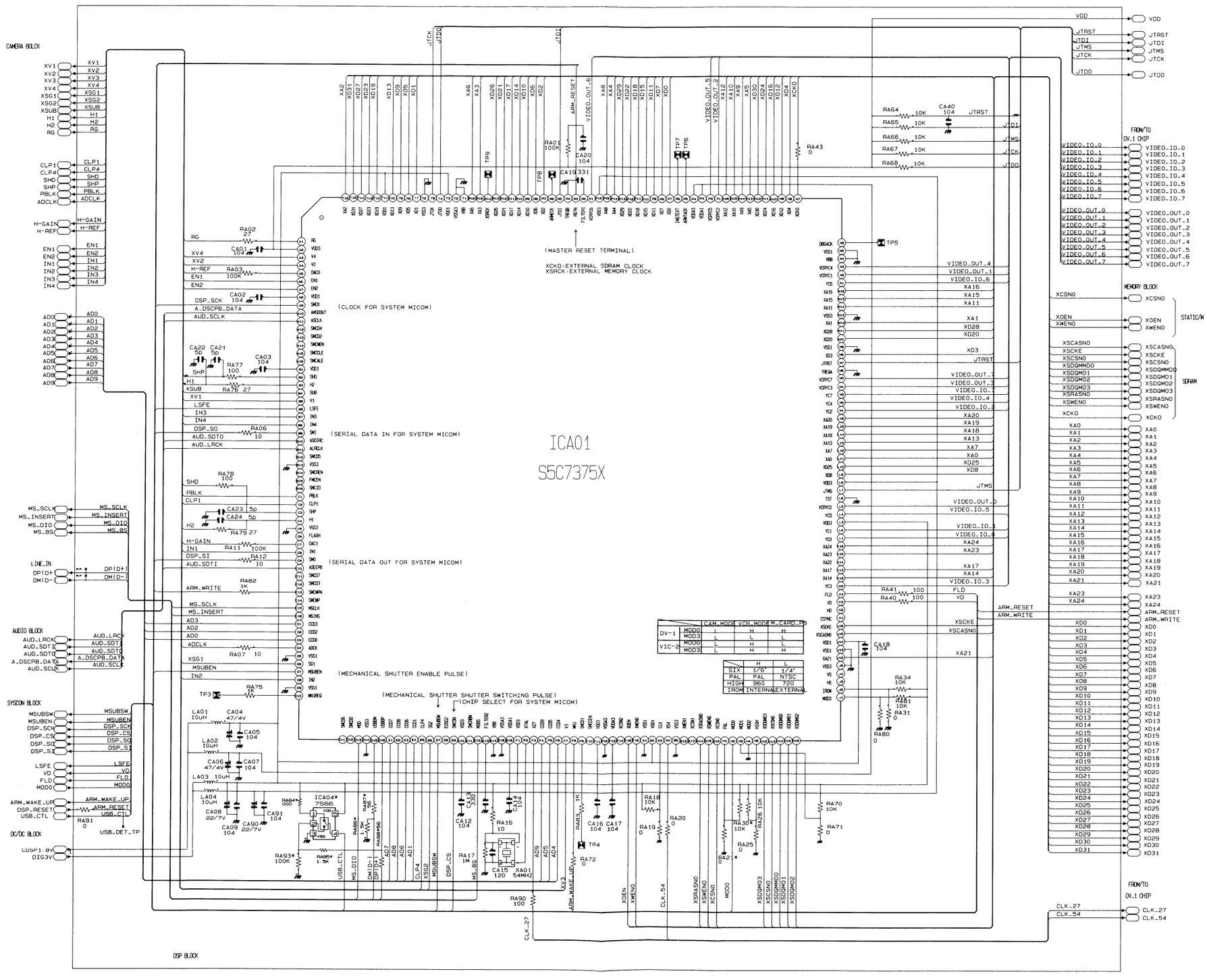
3-7 DC/DC CONVERTER



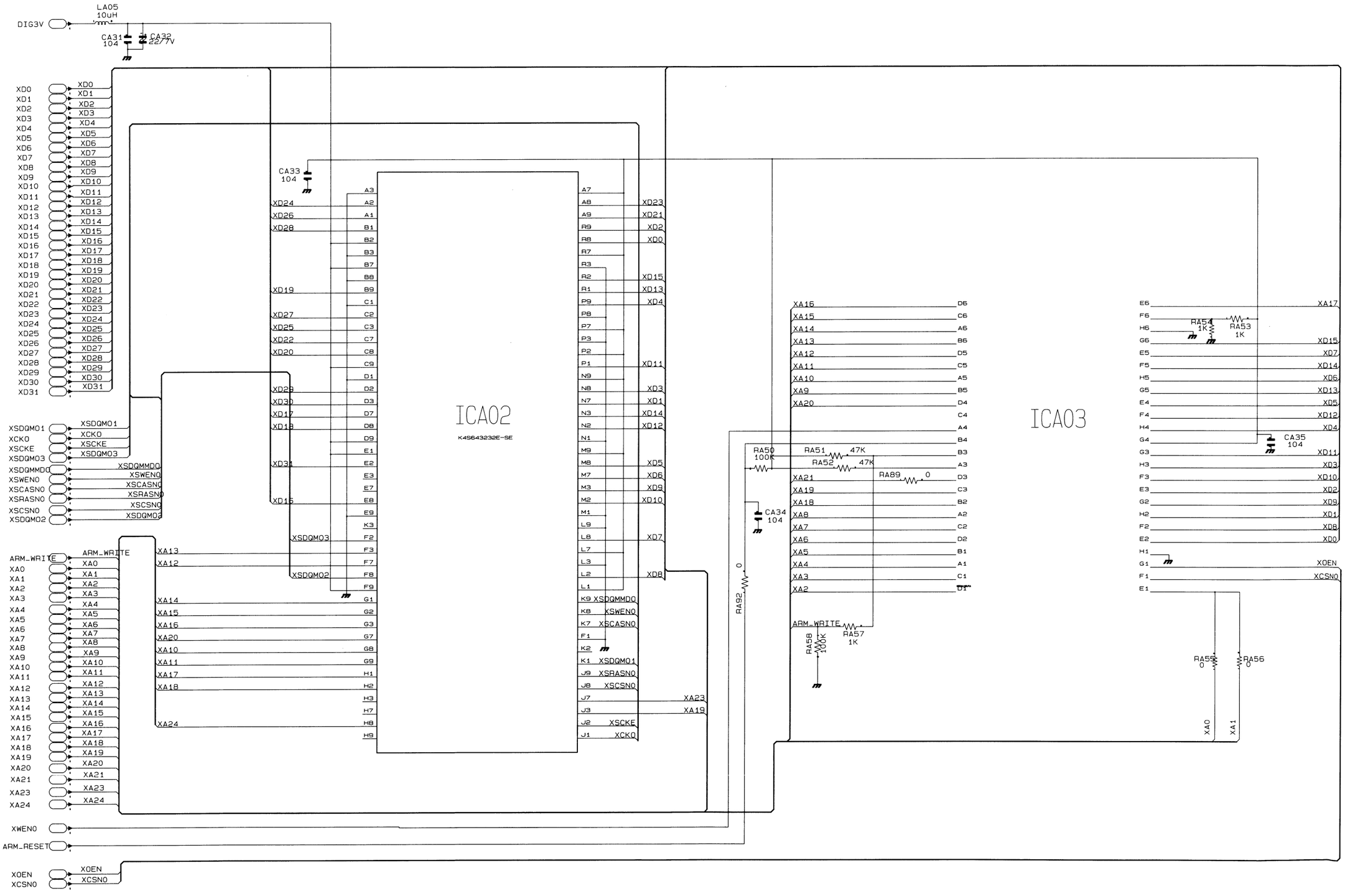
3-8 Camera Process



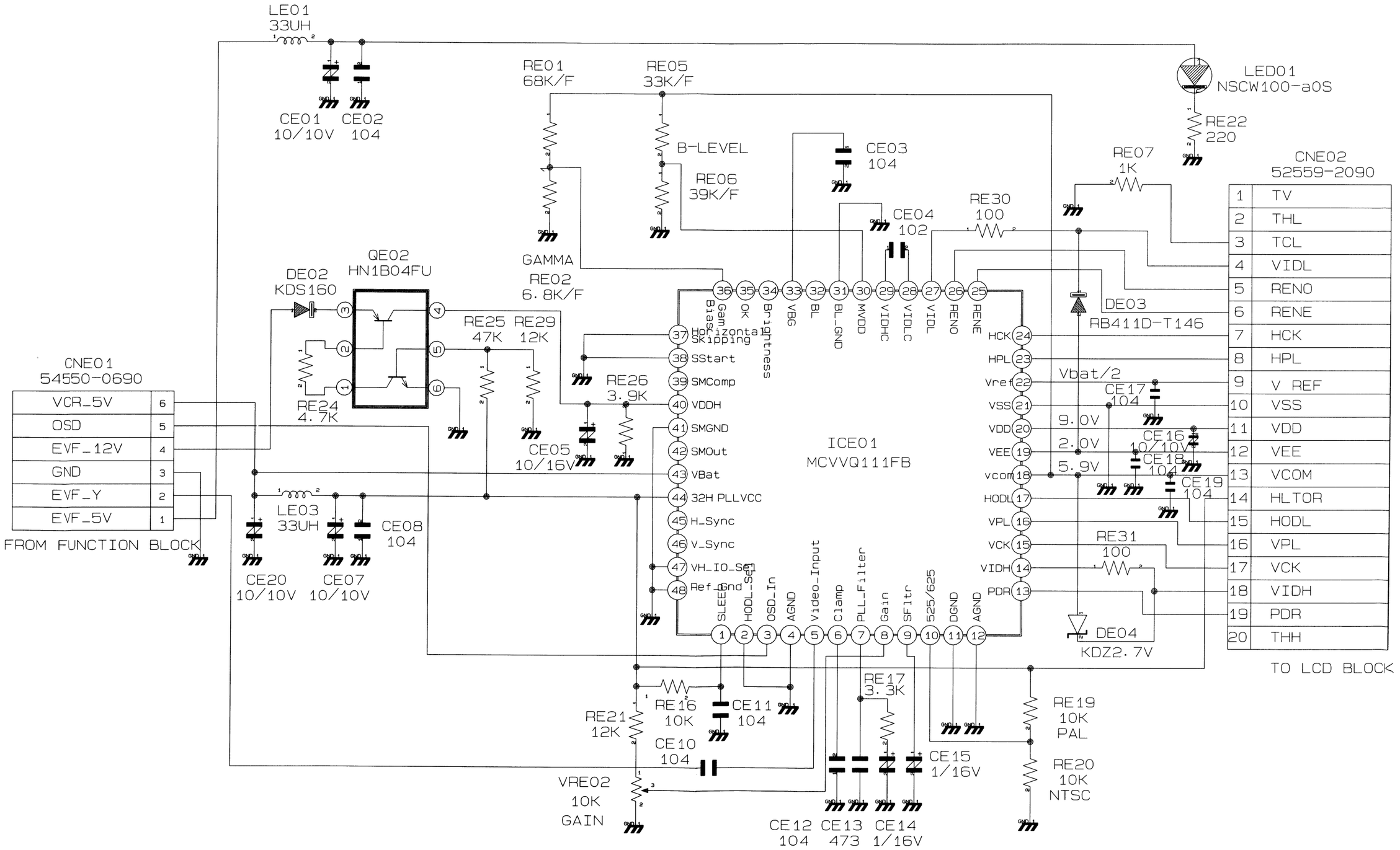
3-9 Camera DSP



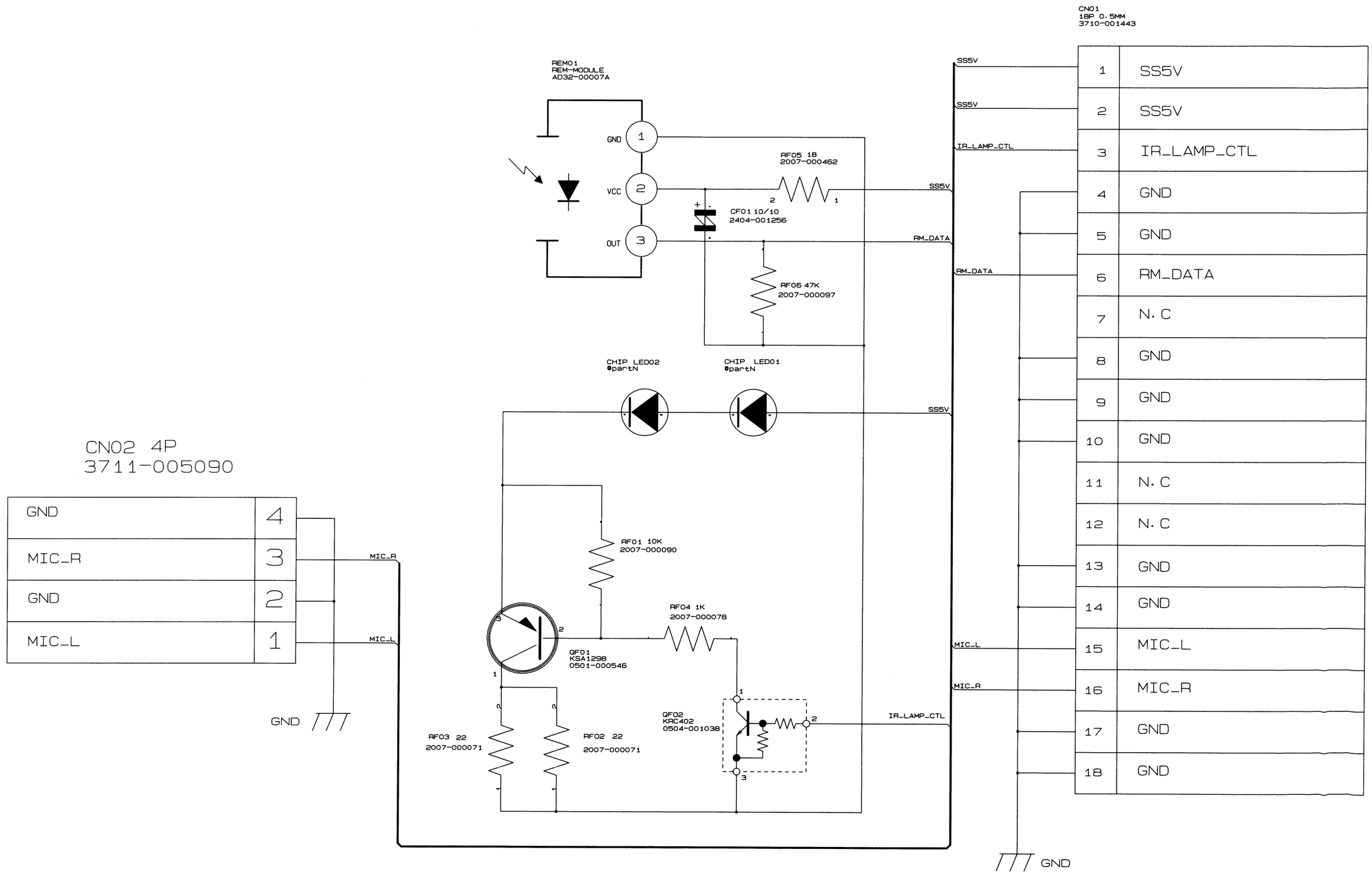
3-10 Camera Memory Block



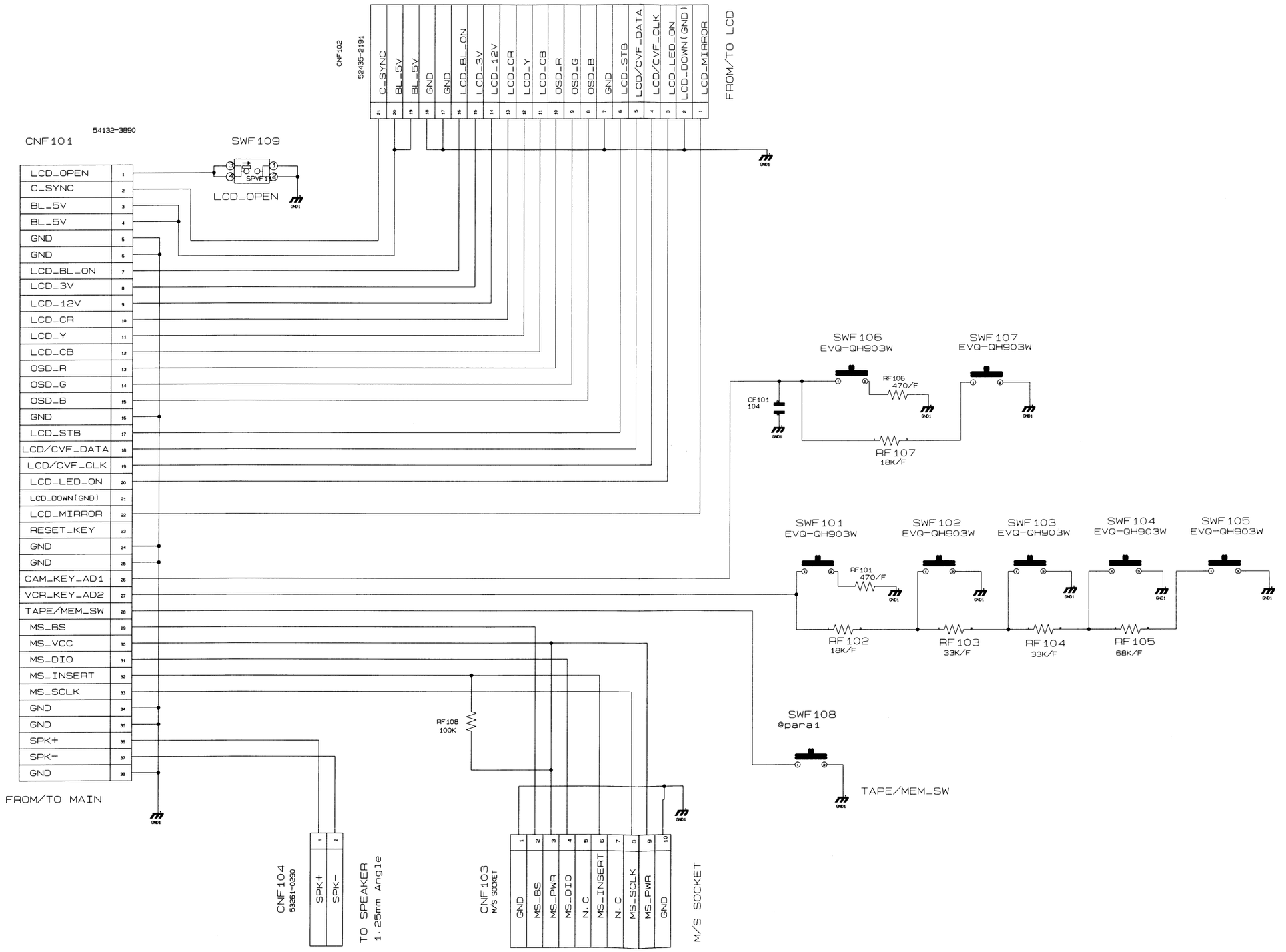
3-11 EVF


LE01
33UH
CE01
10/10V
CE02
104
RE01
68K/F
RE05
33K/F
B-LEVEL
RE06
39K/F
CE03
104
CE04
102
RE30
100
RE07
1K
LED01
NSCW100-a0S
RE22
220
CNE02
52559-2090
1 TV
2 THL
3 TCL
4 VIDL
5 RENO
6 RENE
7 HCK
8 HPL
9 V REF
10 VSS
11 VDD
12 VEE
13 VCOM
14 HLTOR
15 HODL
16 VPL
17 VCK
18 VIDH
19 PDR
20 THH
TO LCD BLOCK
GAMMA
RE02
6.8K/F
QE02
HN1B04FU
DE02
KDS160
RE24
4.7K
RE25
47K
RE29
12K
RE26
3.9K
CE05
10/16V
DE03
RB411D-T146
Vbat/2
CE17
104
9.0V
2.0V
5.9V
CE16
10/10V
CE18
104
CE19
104
CNE01
54550-0690
VCR_5V 6
OSD 5
EVF_12V 4
GND 3
EVF_Y 2
EVF_5V 1
FROM FUNCTION BLOCK
LE03
33UH
CE08
104
CE20
10/10V
CE07
10/10V
ICE01
MCVVQ111FB
36 Gamma Bias
35 OK
34 Brightness
33 VBG
32 BL
31 BL_GND
30 MVDD
29 VIDHC
28 VIDLC
27 VIDL
26 RENO
25 RENE
37 Horizonta Skipping
38 SStart
39 SMComp
40 VDDH
41 SMGND
42 SMOut
43 VBat
44 32H PLLVCC
45 H_Sync
46 V_Sync
47 VH_IO_Set
48 Ref_Gnd
HCK 24
HPL 23
Vref 22
VSS 21
VDD 20
VEE 19
vcom 18
HODL 17
VPL 16
VCK 15
VIDH 14
PDR 13
1 SLEEP
2 HODL_Set
3 OSD_In
4 AGND
5 Video_Input
6 Clamp
7 PLL_Filter
8 Gain
9 SFltr
10 525/625
11 DGND
12 AGND
RE31
100
DE04
KDZ2.7V
RE17
3.3K
RE16
10K
CE11
104
RE21
12K
CE10
104
VRE02
10K
GAIN
CE15
1/16V
CE12
104
CE13
473
CE14
1/16V
RE19
10K
PAL
RE20
10K
NTSC

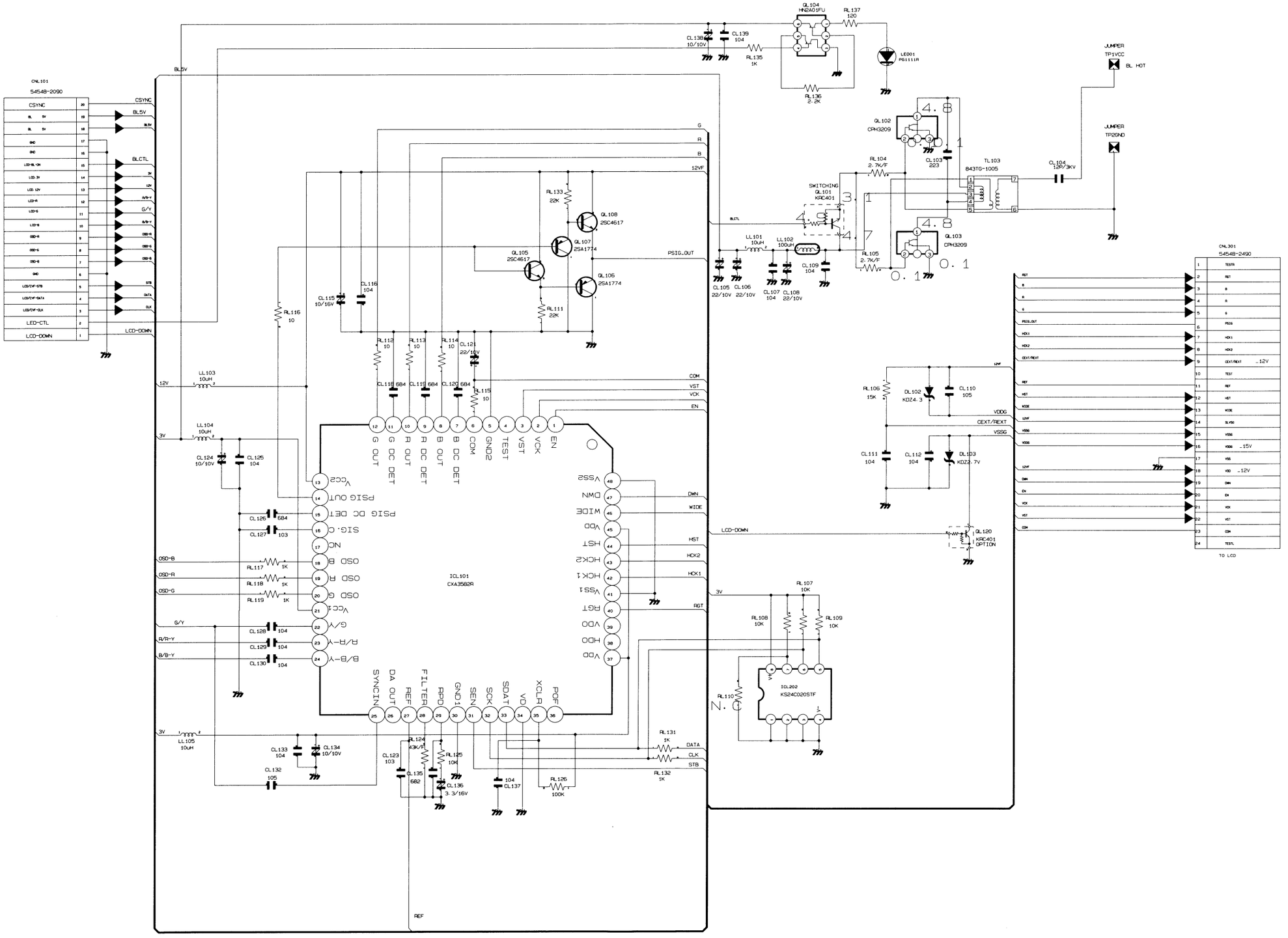
3-12 Front


REM01
REM-MODULE
AD32-00007A
GND
VCC
OUT
RF05 1Ω
2007-000462
CF01 10/10
2404-001256
RF06 47K
2007-000097
CHIP LED02
●partN
CHIP LED01
●partN
RF01 10K
2007-000090
RF04 1K
2007-000078
QF01
KSA1298
0501-000546
RF03 22
2007-000071
RF02 22
2007-000071
QF02
KRC402
0504-001038
CN02 4P
3711-005090
GND
MIC_R
GND
MIC_L
CN01
18P 0.5MM
3710-001443
SS5V
SS5V
IR_LAMP_CTL
GND
GND
RM_DATA
N.C
GND
GND
N.C
N.C
GND
GND
MIC_L
MIC_R
GND
GND

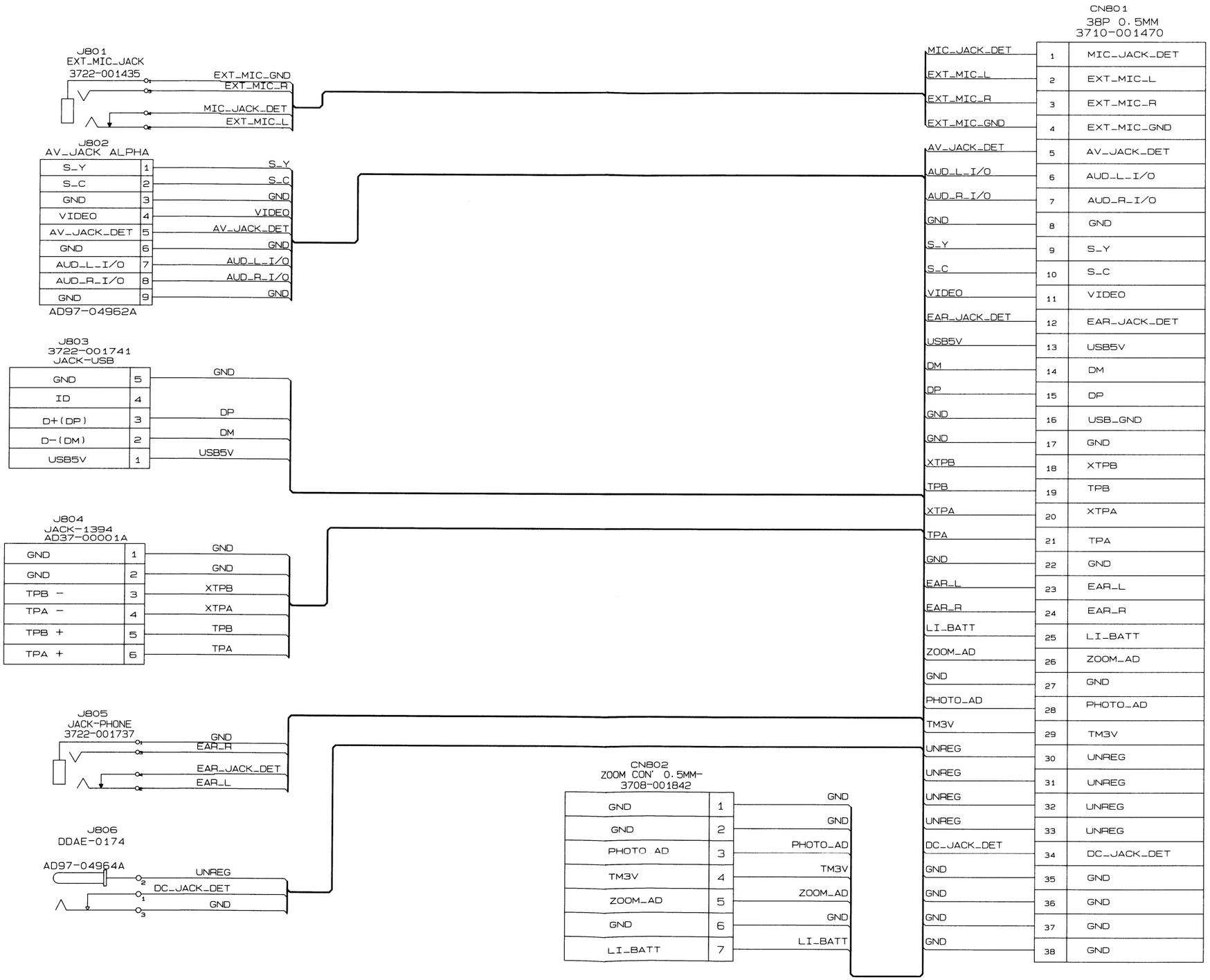
3-13 Function



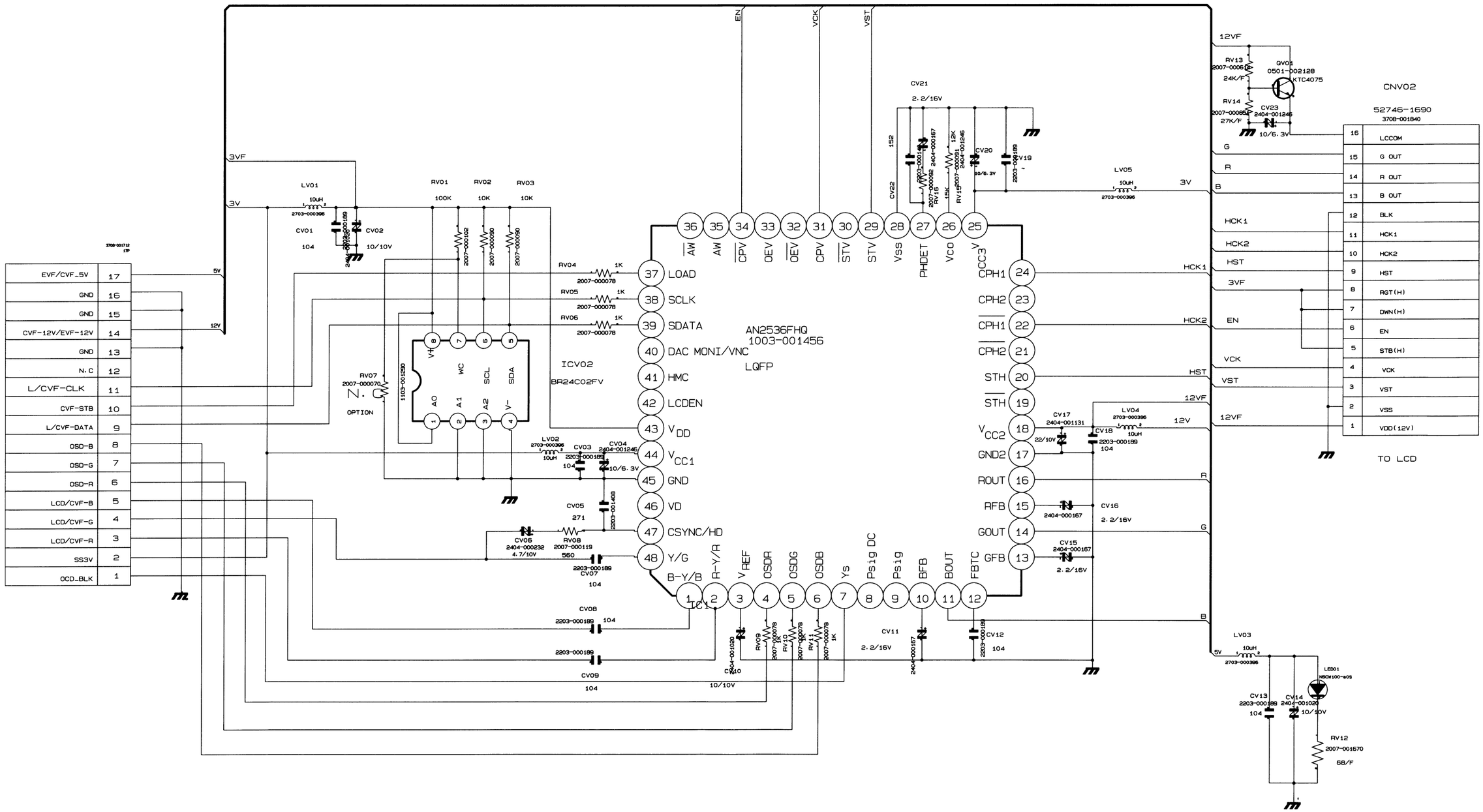
3-14 LCD


CNL101
54548-2090
CSYNC
BL5V
BLCTL
LCD-DOWN
LED-CTL
G/Y
R/R-Y
B/B-Y
OSD-R
OSD-G
OSD-B
ICL101
CXA3582R
QL104
HN2A01FU
RL137
120
CL138
10/10V
CL139
104
RL135
1K
RL136
2.2K
LED01
PG1111R
JUMPER
TP1VCC
BL HOT
JUMPER
TP2GND
QL102
CPH3209
QL103
CPH3209
CL103
223
TL103
843TG-1005
CL104
12P/3KV
RL104
2.7K/F
RL105
2.7K/F
SWITCHING
QL101
KRC401
LL101
10uH
LL102
100uH
CL109
104
CL105
22/10V
CL106
22/10V
CL107
104
CL108
22/10V
QL105
2SC4617
QL107
2SA1774
QL106
2SA1774
QL108
2SC4617
RL133
22K
RL111
22K
RL116
10
CL115
10/16V
CL116
104
RL112
10
RL113
10
RL114
10
CL121
22/10V
CL118 684
CL119 684
CL120 684
RL115
10
LL103
10uH
LL104
10uH
LL105
10uH
CL124
10/10V
CL125
104
CL126
684
CL127
103
CL128
104
CL129
104
CL130
104
CL133
104
CL134
10/10V
CL132
105
RL124
43K/F
RL125
10K
CL123
103
CL135
682
CL136
3.3/16V
CL137
104
RL126
100K
RL131
1K
RL132
1K
RL117
1K
RL118
1K
RL119
1K
RL106
15K
DL102
KDZ4.3
CL110
105
CL111
104
CL112
104
DL103
KDZ2.7V
QL120
KRC401
OPTION
RL107
10K
RL108
10K
RL109
10K
RL110
2.7K
ICL202
KS24C020STF
CNL301
54548-2490
TO LCD
G
R
B
12VF
PSIG_OUT
COM
VST
VCK
EN
DWN
WIDE
HST
HCK2
HCK1
RGT
VDDG
CEXT/REXT
VSSG
-12V
-15V
REF

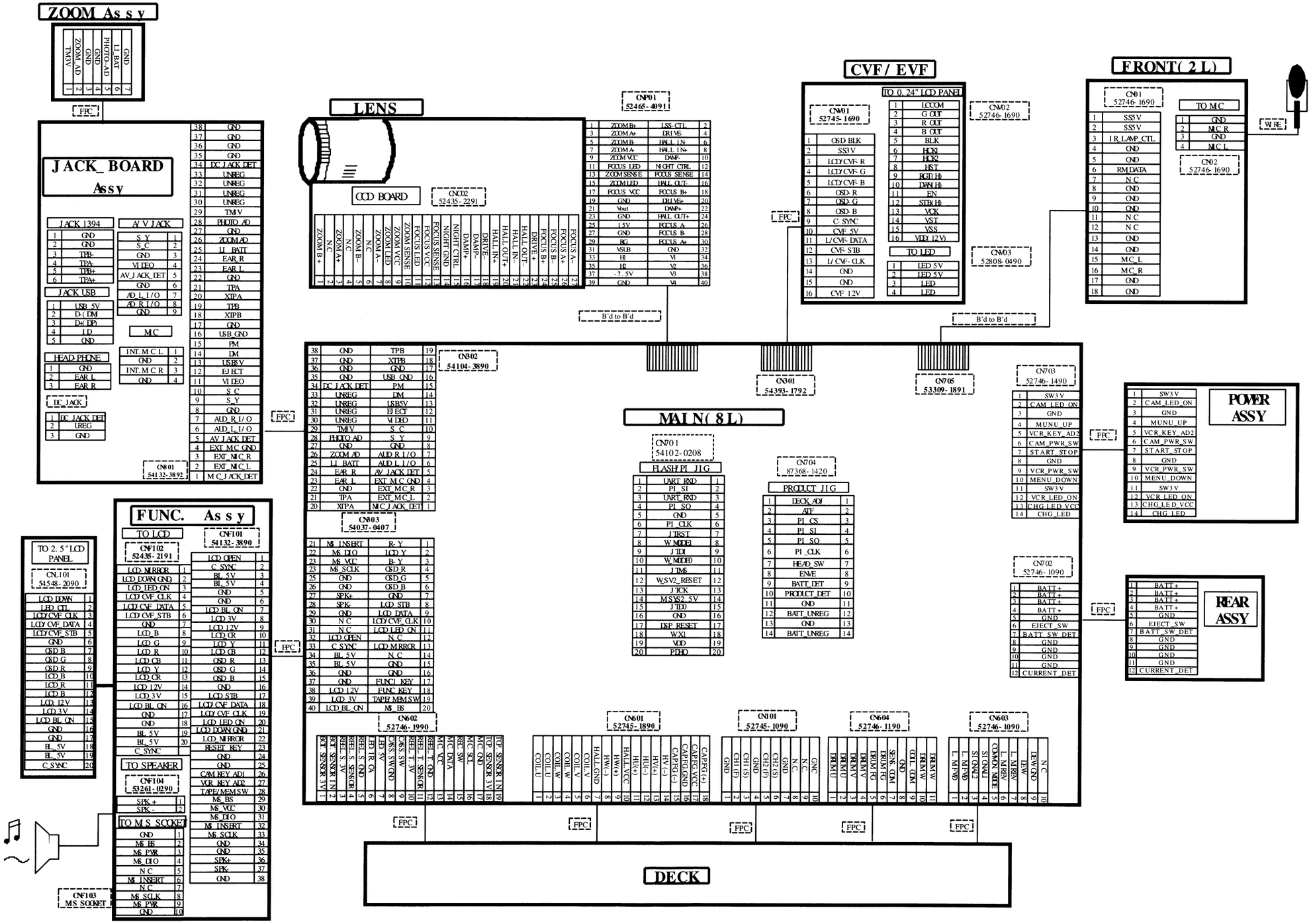
3-15 Jack Board



3-16 CVF


EVF/CVF_5V 17
GND 16
GND 15
CVF-12V/EVF-12V 14
GND 13
N.C 12
L/CVF-CLK 11
CVF-STB 10
L/CVF-DATA 9
OSD-B 8
OSD-G 7
OSD-R 6
LCD/CVF-B 5
LCD/CVF-G 4
LCD/CVF-R 3
SS3V 2
OCD_BLK 1
3VF
3V
5V
12V
LV01 10uH 2703-000396
CV01 104
CV02 10/10V
RV01 100K
RV02 10K
RV03 10K
RV04 1K 2007-000078
RV05 1K 2007-000078
RV06 1K 2007-000078
RV07 2007-000070 N.C OPTION
ICV02 BR24C02FV
LV02 2703-000396 10uH
CV03 2203-000189 104
CV04 2404-001245 10/6.3V
CV05 271
CV06 2404-000232 4.7/10V
RV08 2007-000119 560
CV07 2203-000189 104
CV08 2203-000189 104
CV09 2203-000189 104
CV10 2404-001020 10/10V
CV11 2.2/16V
RV09 2007-000078 1K
RV10 2007-000078 1K
RV11 2007-000078 1K
EN
VCK
VST
CV21 2.2/16V
CV22 152
CV20 10/6.3V
CV19 2203-000189
RV15 15K
RV16 12K
LV05 10uH 2703-000396
AN2536FHQ 1003-001456 LQFP
TC1
36 XAW
35 AW
34 XCPV
33 OEV
32 XOEV
31 CPV
30 XSTV
29 STV
28 VSS
27 PHDET
26 VCO
25 VCC3V
24 CPH1
23 CPH2
22 XCPH1
21 XCPH2
20 STH
19 XSTH
18 VCC2
17 GND2
16 ROUT
15 RFB
14 GOUT
13 GFBTC
12 BOUT
11 FBOUT
10 BFB
9 Psig
8 Psig DC
7 Ys
6 OSDB
5 OSDG
4 OSDR
3 VREF
2 R-Y/R
1 B-Y/B
37 LOAD
38 SCLK
39 SDATA
40 DAC MONI/VNC
41 HMC
42 LCDEN
43 VDD
44 VCC1
45 GND
46 VD
47 CSYNC/HD
48 Y/G
12VF
RV13 2007-000654 24K/F
RV14 2007-000654 27K/F
QV01 0501-002128 KTC4075
CV23 2404-001245 10/6.3V
CV17 2404-001131 22/10V
CV18 2203-000189 104
LV04 2703-000396 10uH
CV16 2404-000167 2.2/16V
CV15 2404-000167 2.2/16V
LV03 10uH 2703-000396
LED01 NSCM100-e05
CV13 2203-000189 104
CV14 2404-001020 10/10V
RV12 2007-001570 68/F
CNV02 52746-1690 3708-001840
16 LCCOM
15 G OUT
14 R OUT
13 B OUT
12 BLK
11 HCK1
10 HCK2
9 HST
8 RGT(H)
7 DWN(H)
6 EN
5 STB(H)
4 VCK
3 VST
2 VSS
1 VDD(12V)
TO LCD
G
R
B
HCK1
HCK2
HST
3VF
EN
VCK
VST
12VF
12V

4. Wiring Diagram



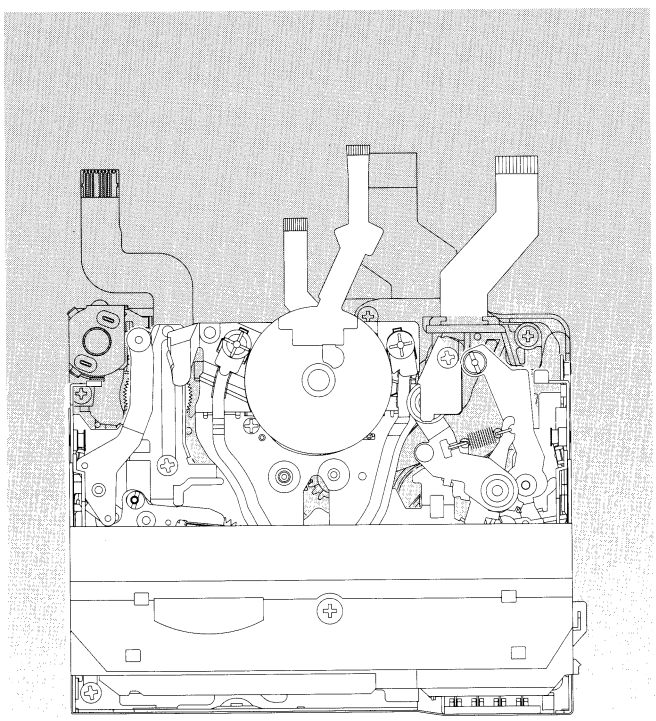
SAMSUNG

DIGITAL COMCORDER DECK
CSM-2000

MECHANICAL Manual

◈ File with the SERVICE MANUAL.

DIGITAL CAMCORDER DECK



CONTENTS

1. Operation
2. Adjustment
3. Disassembly and Reassembly

1. Operation

1-1 Nomenclature

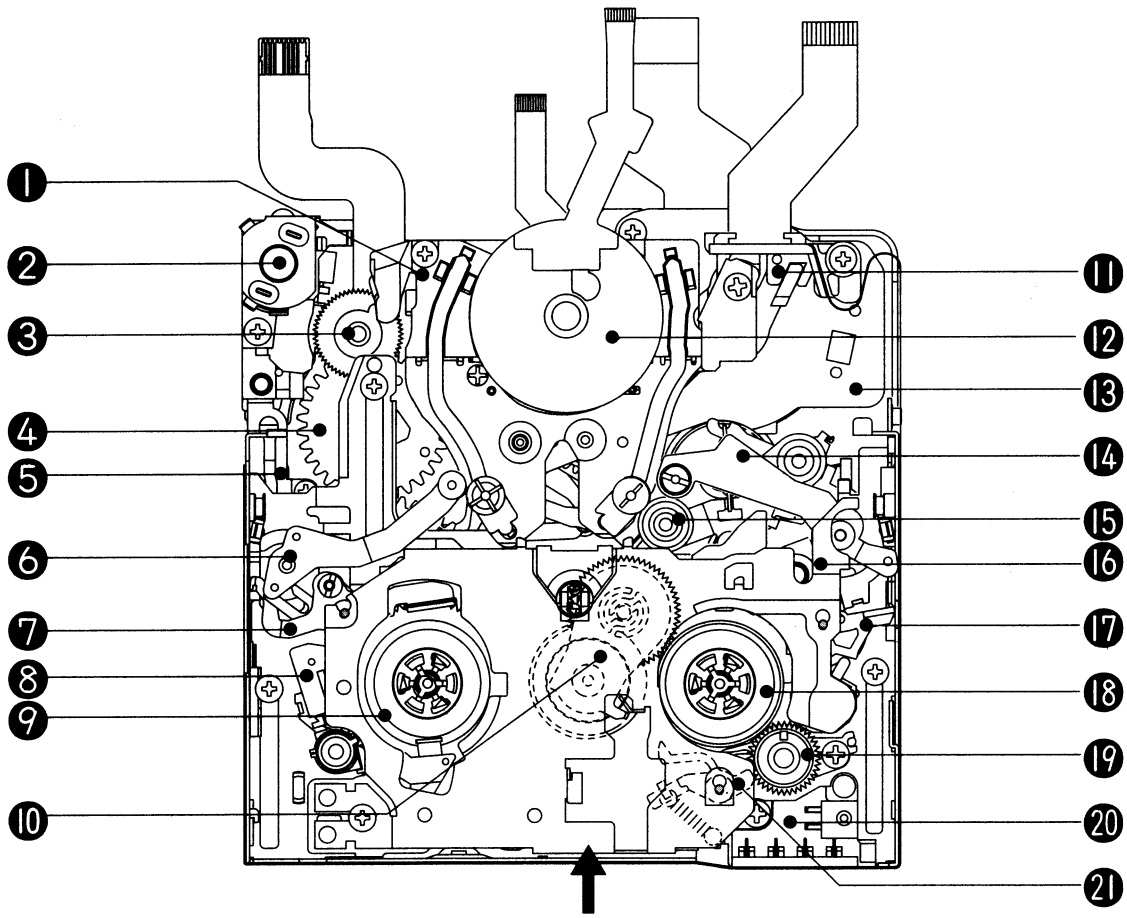


Fig 1-1

❶ BASE DRUM
❷ MOTOR LOADING
❸ GEAR WHEEL
❹ GEAR MODE SWITCH
❺ GUIDE TENSION CAM
❻ ARM TENSION
❼ BRAKE TENSION
❽ BRAKE S
❾ REEL DISK S
❿ IDLER
⓫ HOLDER FPC SUB
⓬ DRUM
⓭ MOTOR CAPSTAN
⓮ REVIEW ARM
⓯ ARM PINCH
⓰ COVER REEL
⓱ LEVER EJECT
⓲ REEL DISK T
⓳ BRAKE PULLY
⓴ SWITCH MIC
㉑ BRAKE MAIN T

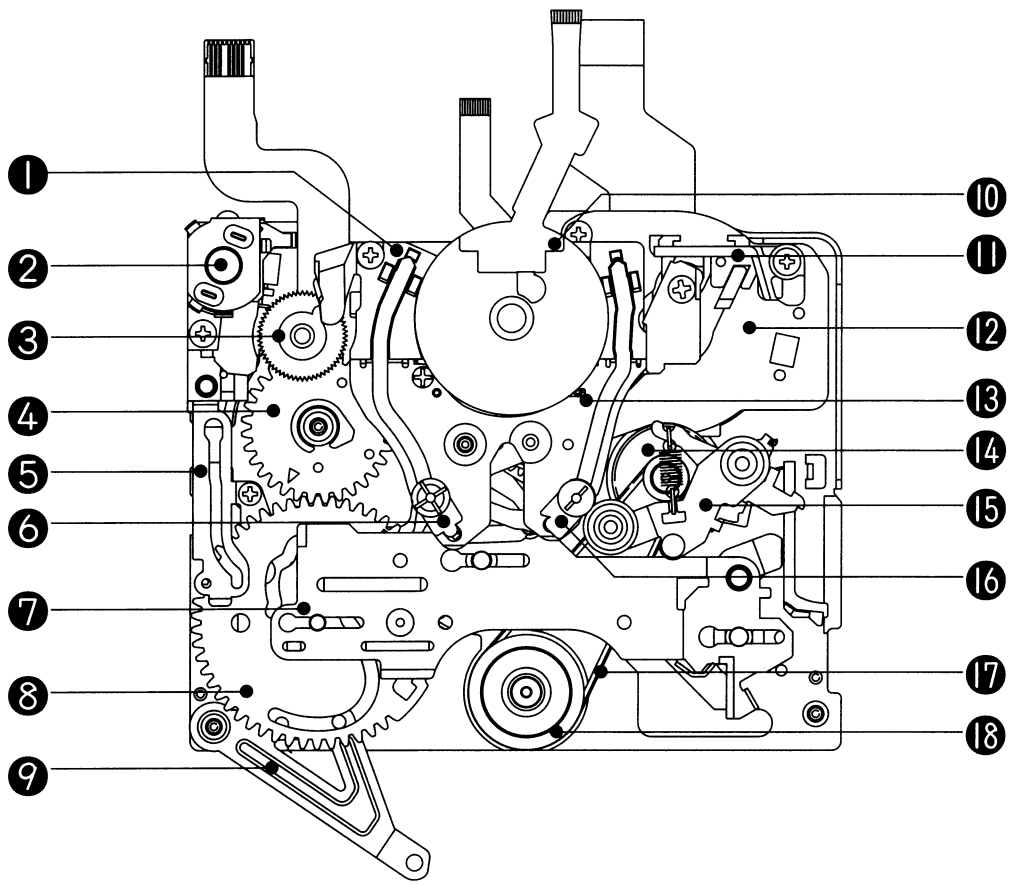


Fig 1-2

❶ BASE DRUM
❷ MOTOR LOADING
❸ GEAR WHEEL
❹ GEAR MODE SWITCH
❺ GUIDE TENSION CAM
❻ POLE BASE S
❼ SLIDE MAIN
❽ GEAR CAM MAIN
❾ LEVER CAM
❿ DRUM
⓫ HOLDER FPC SUB
⓬ MOTOR CAPSTAN
⓭ GUIDE RAIL
⓮ GEAR CAPSTAN
⓯ ARM PINCH
⓰ POLE BASE T
⓱ TIMMING BELT
⓲ GEAR PULLY

1-2 Switch Modes

Table 1-1 Switch Mode Code

Modes	signal 2+common	Rotation Angle of Gear Mode	Mechanical state
EJECT	18kΩ	-68.5° ~ -46.6°	Open housing
UNLOAD	36	-4° ~ 4°	Standby Cassette down
LD 1	54	51° ~ 59°	Idler Rotate and stop in loading mode
LD 2	72	70° ~ 140.8°	Capstan Rotate in unload mode
STOP	90	199.89° ~ 207.85°	stop
PLAY	0	269.3° ~ 288.5°	In REC/PB/CUE/FF/PAUSE

※ Fig is based Eject Mode.

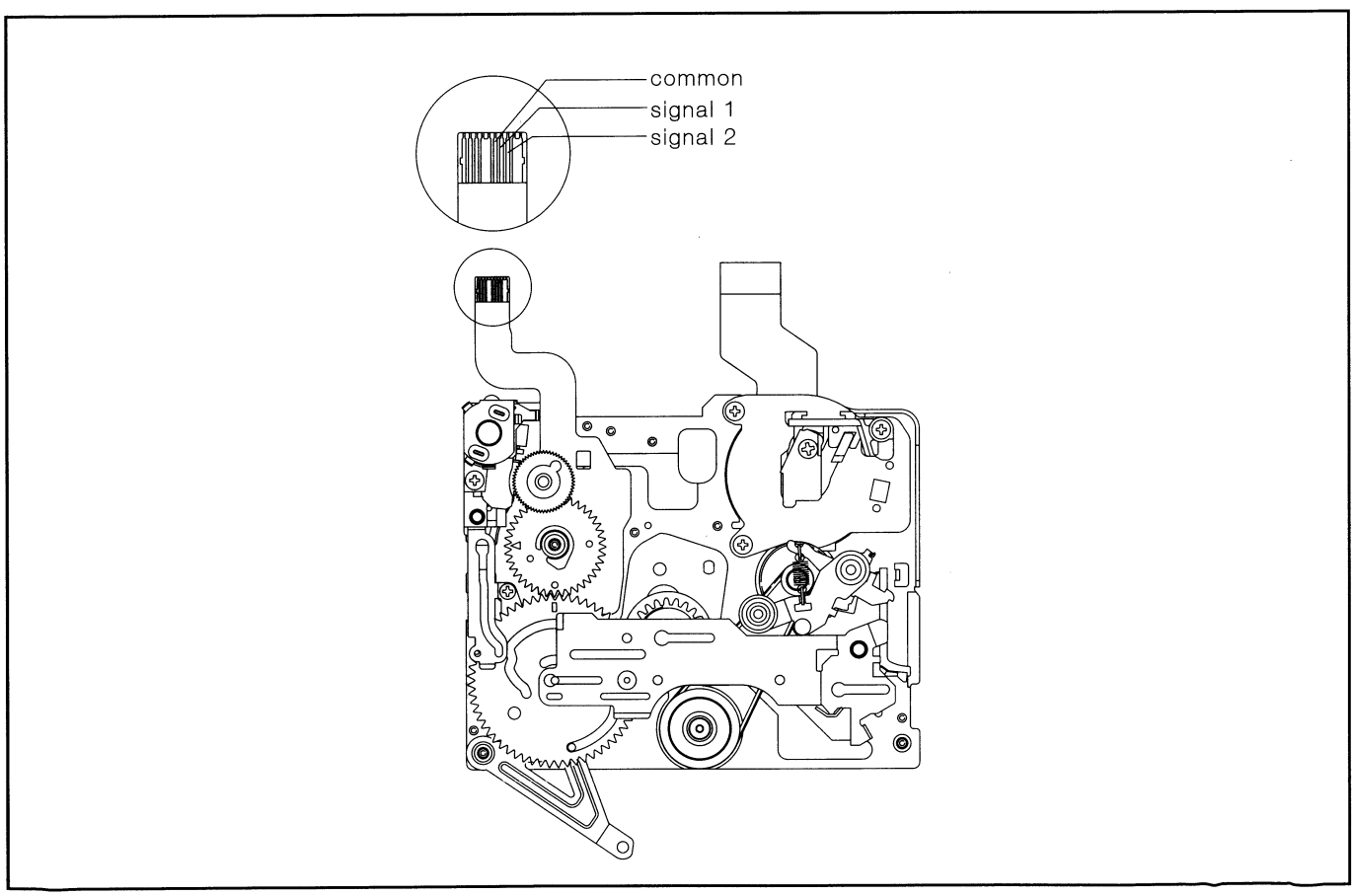


Fig 1-3

1-3-1 Gear Train

Moter Loading ❶ rotates
(Gear Worm Motor ❷ → Gear Worm Loading ❸)
↓
Gear Wheel ❹ rotates
↓
Gear Mode Switch ❺ rotates
↓
Gear Cam Main ❻ rotates

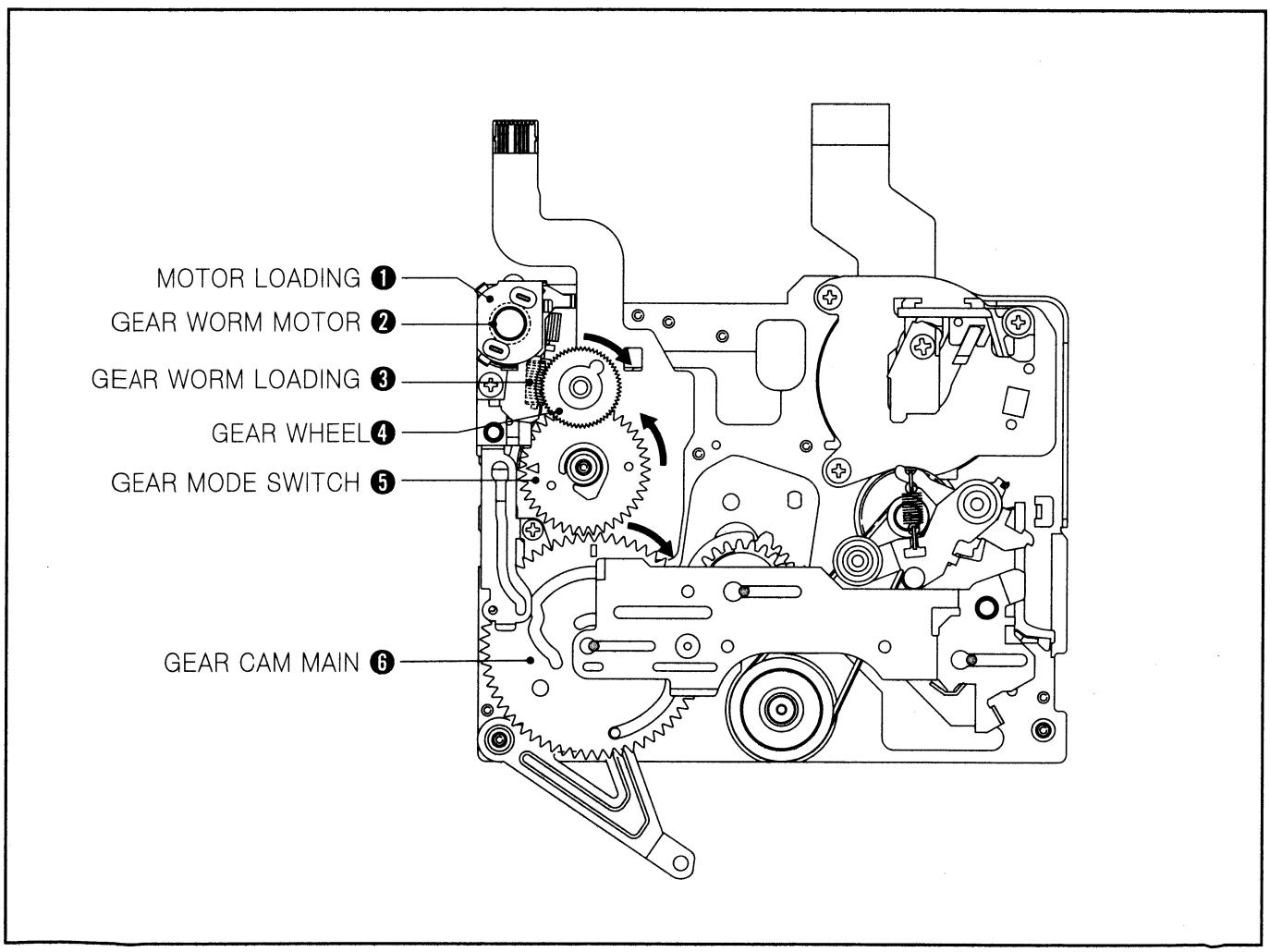


Fig 1-4

1-3-2 Chassis Sub

Motor Loading ❶ rotates.
↓
Gear Wheel ❷ rotates.
↓
Gear Mode Switch ❸ rotates.
↓
Gear Cam Main ❹ rotates.
↓
Lever Cam ❹ rotates.
↓
Chassis Sub ❻ moves.

Mode	Chassis Sub
	OFF ON
EJECT	
UNLOAD	
LD 1	
LD 2	
STOP	
PLAY	

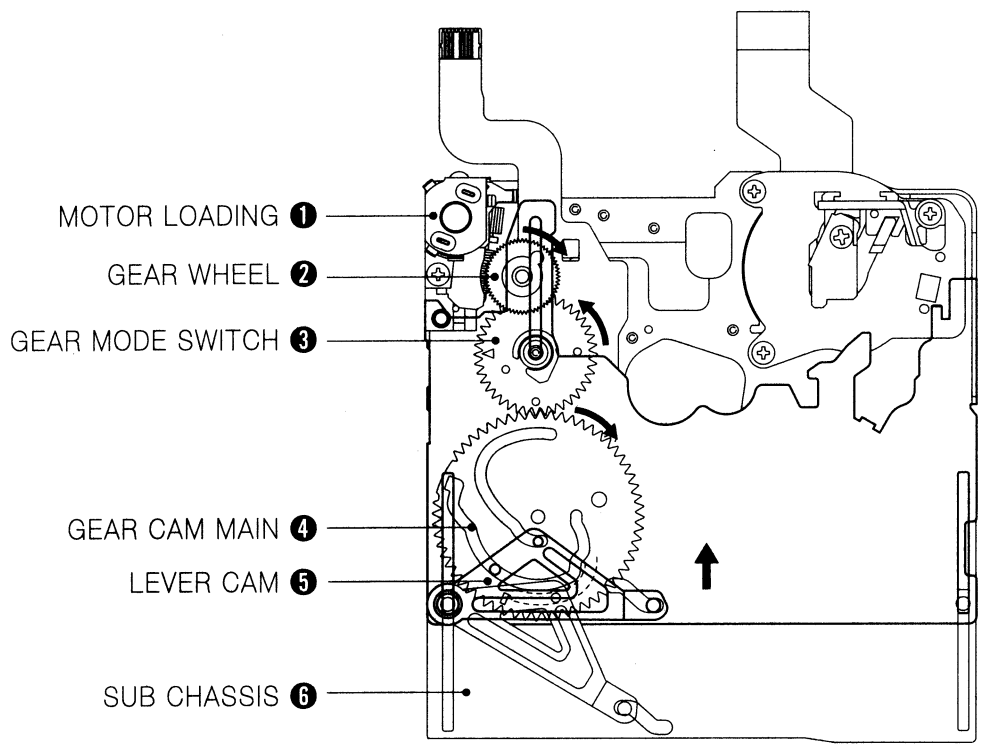


Fig 1-5

1-3-3 Brake S(SUB/MAIN)

Motor Loading ❶ rotates.
↓
Chassis Sub ❷ slides.
↓
Slide Main ❸ slides in direction of arrow.
↓
Brakes S ❹ released or operated to Reel Disk S ❺ by slide Main ❸.

Mode	Sub Brake		Main Brake	
EJECT	OFF	ON	OFF	ON
UNLOAD				
LD 1				
LD 2				
STOP				
PB				

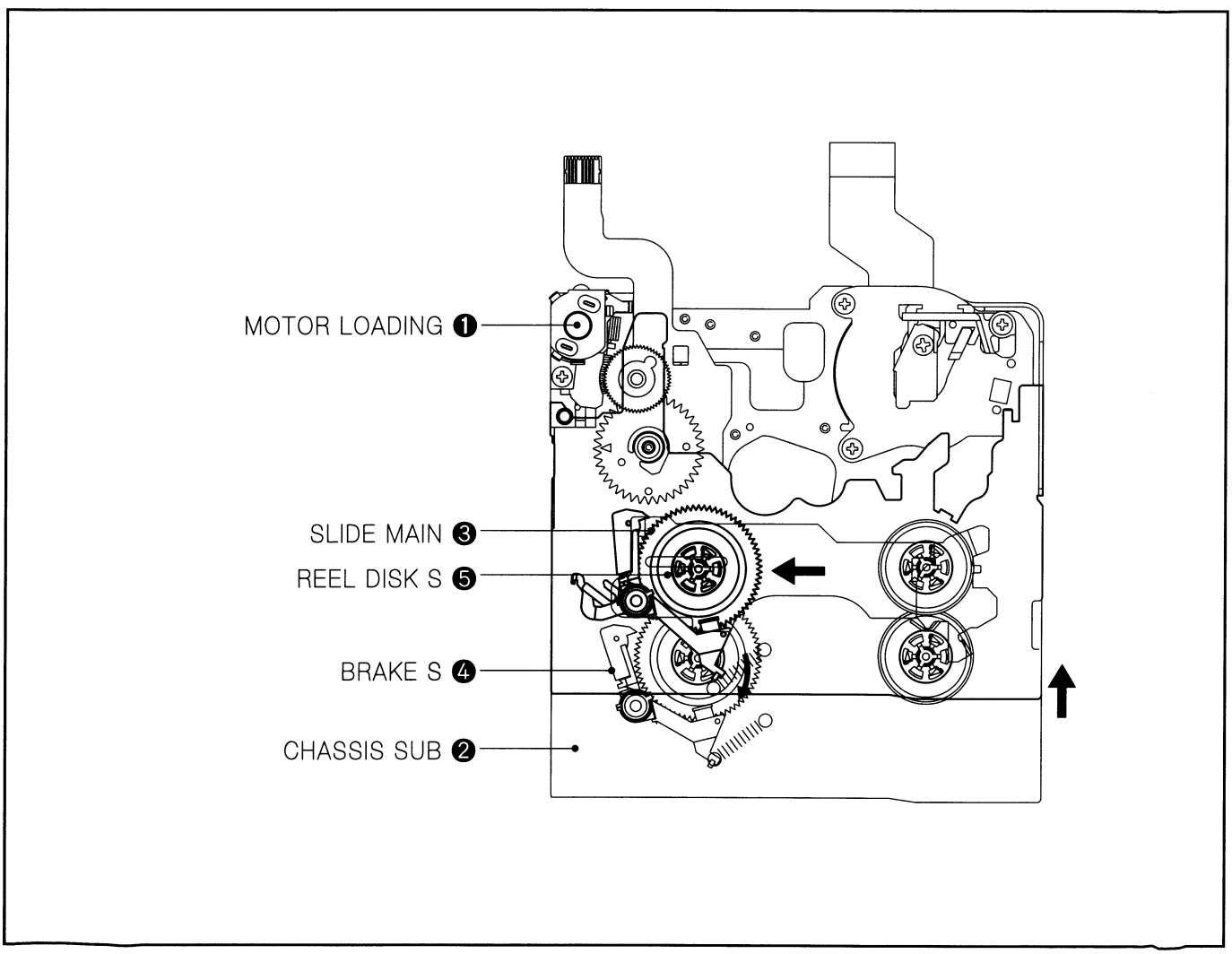


Fig 1-6

1-3-4 Brake T

Motor Loading ❶ rotates.
↓
Chassis Sub ❷ slides.
↓
Slide Main ❸ slides in direction of arrow.
↓
Brake T ❹ released or operated to Reel disk T ❺ by slide Main ❸

Mode	Brake Main T	
	OFF	ON
EJECT		
UNLOAD		
LD 1		
LD 2		
STOP		
PB		

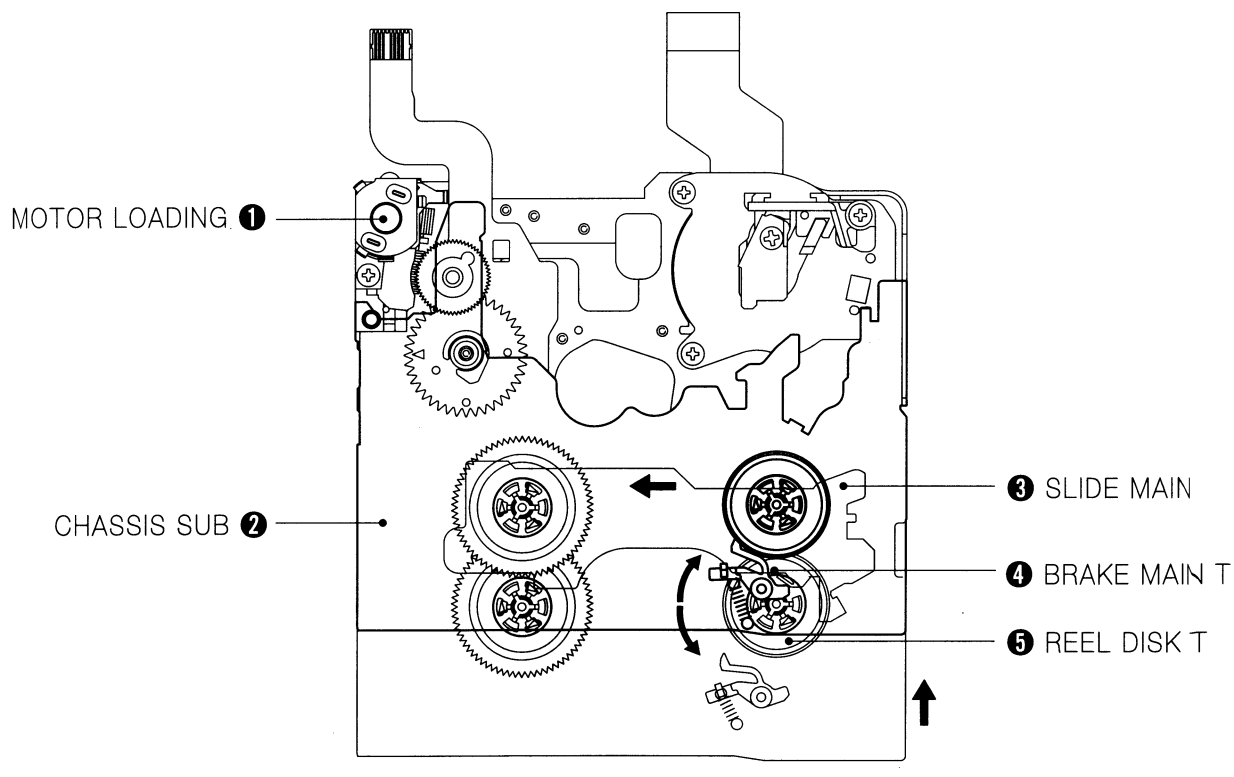


Fig 1-7

1-3-5 Arm Tension

Motor Loading ❶ rotates.
↓
Chassis Sub ❷ slides.
↓
Arm Tension ❻ slides in direction of arrow by Guide tension cam ❸ and cam curve A ❹
↓
Brake tension ❼ released or operated connection with Arm Tension.
↓
After Loading finished, Arm Tension ❻ is controled by cam curve ❾ of Gear Mode Switch ❽.

Mode	Arm Tension
	OFF ON
EJECT	
UNLOAD	
LD 1	
LD 2	
STOP	
PLAY	

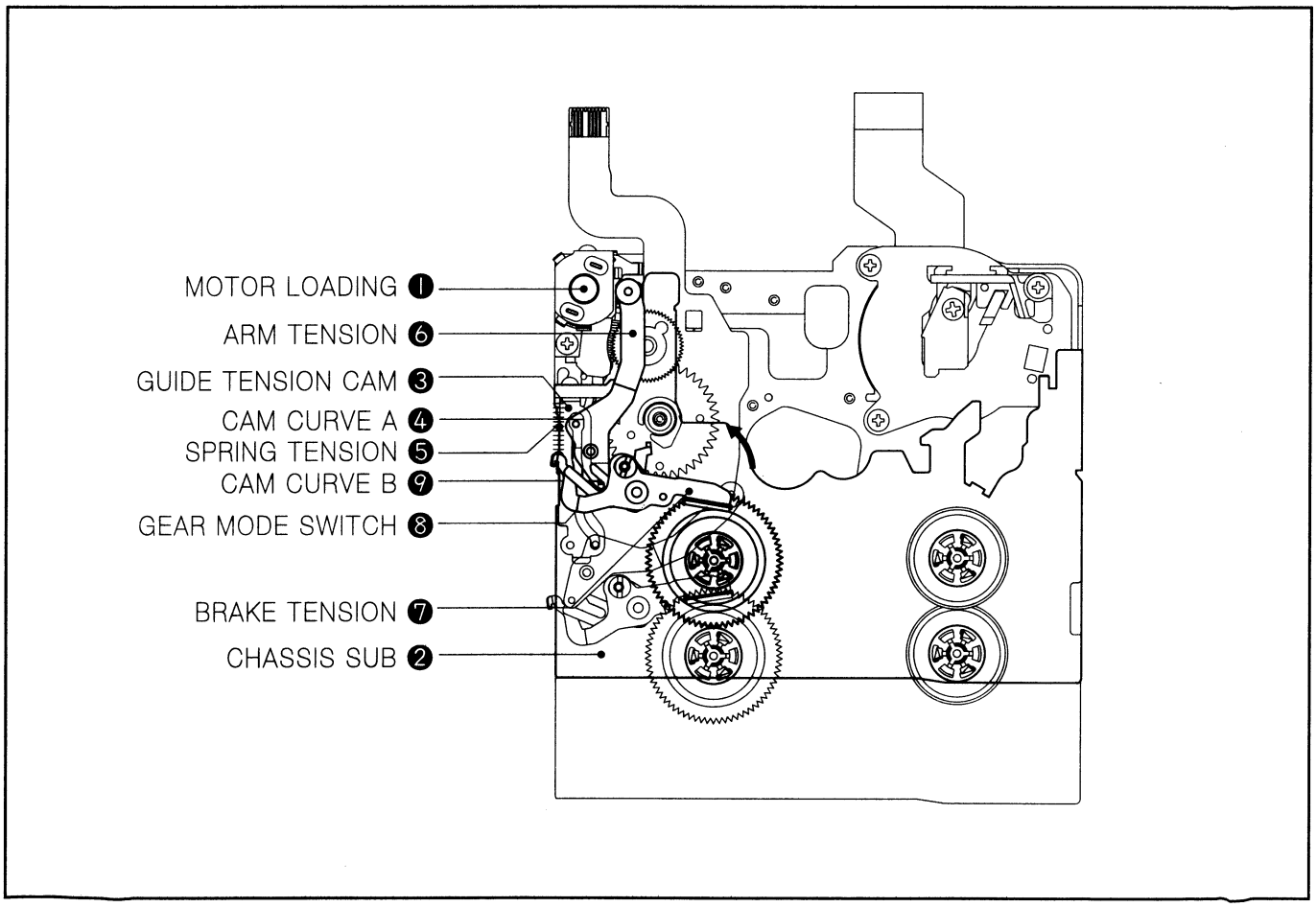


Fig 1-8

1-3-6 Arm Pinch

Mode	Arm Pinch
	OFF ON
EJECT	
UNLOAD	
LD 1	
LD 2	
STOP	
PLAY	

Motor Loading ❶ rotates.

↓

Chassis Sub ❷ moves.

↓

Arm Pinch ❹ rotates cam curve A ❸ of Chassis Sub ❷.

↓

After Chassis Sub ❷ is finished loading, slider main ❺ slides in direction of arrow.

↓

Pinch Roller ❻ contacts shaft of Motor capstan ❼.

↓

Motor loading ❶ rotates in reverse.

↓

Slide main ❺ moves in reverse direction of arrow.

↓

Pinch Roller ❻ released from shaft of Motor Capstan ❼ by spring force of spring Lever pinch ❽.

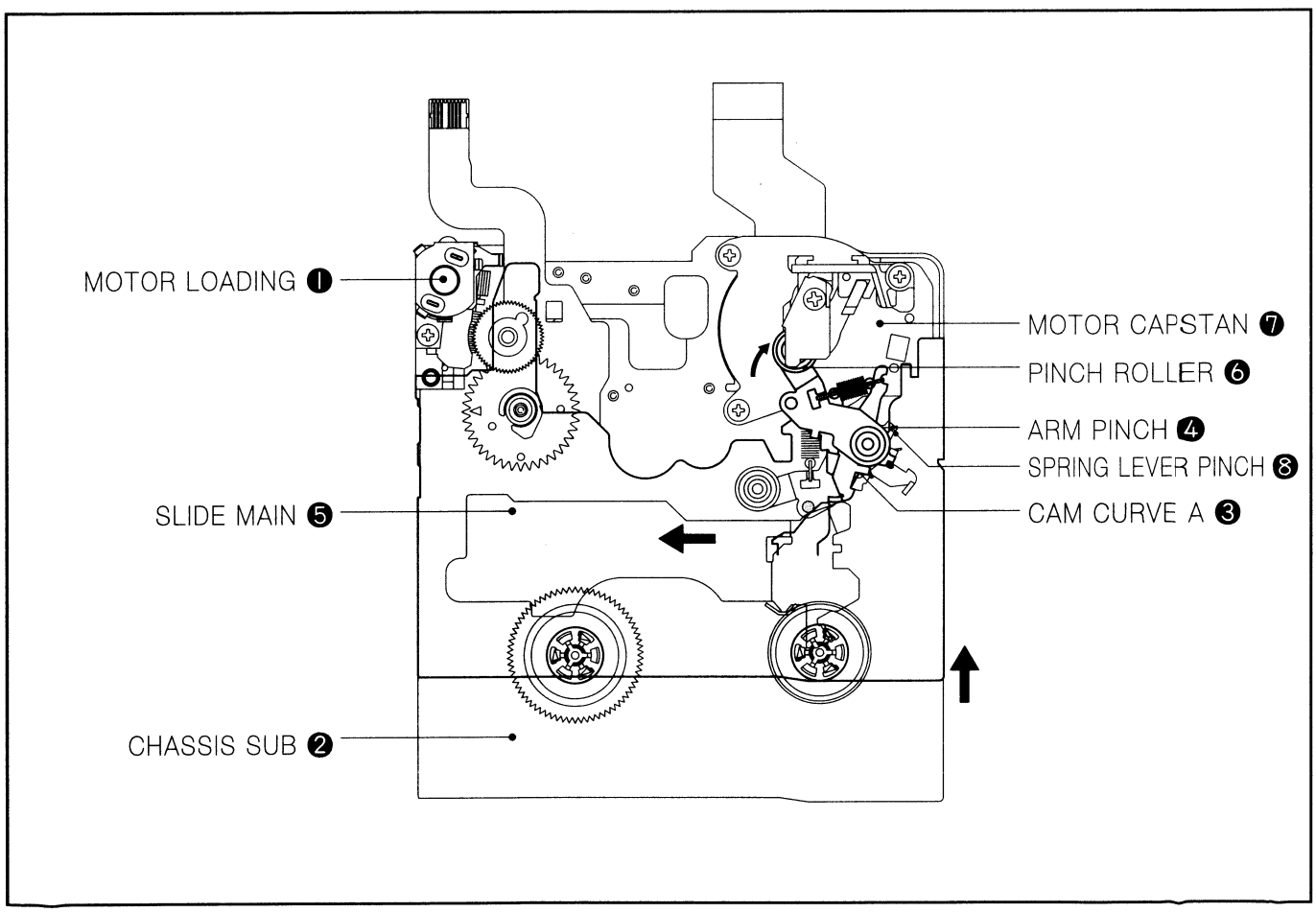


Fig 1-9

1-3-7 Arm Review

Motor Loading ❶ rotates.

↓

Chassis Sub ❷ moves.

↓

Arm Review ❺ simultaneously rotates clockwise and translates via cam curve ❹ of Chassis Main ❸

Mode	Arm Review
	OFF ON
EJECT	
UNLOAD	
LD 1	
LD 2	
STOP	
PLAY	

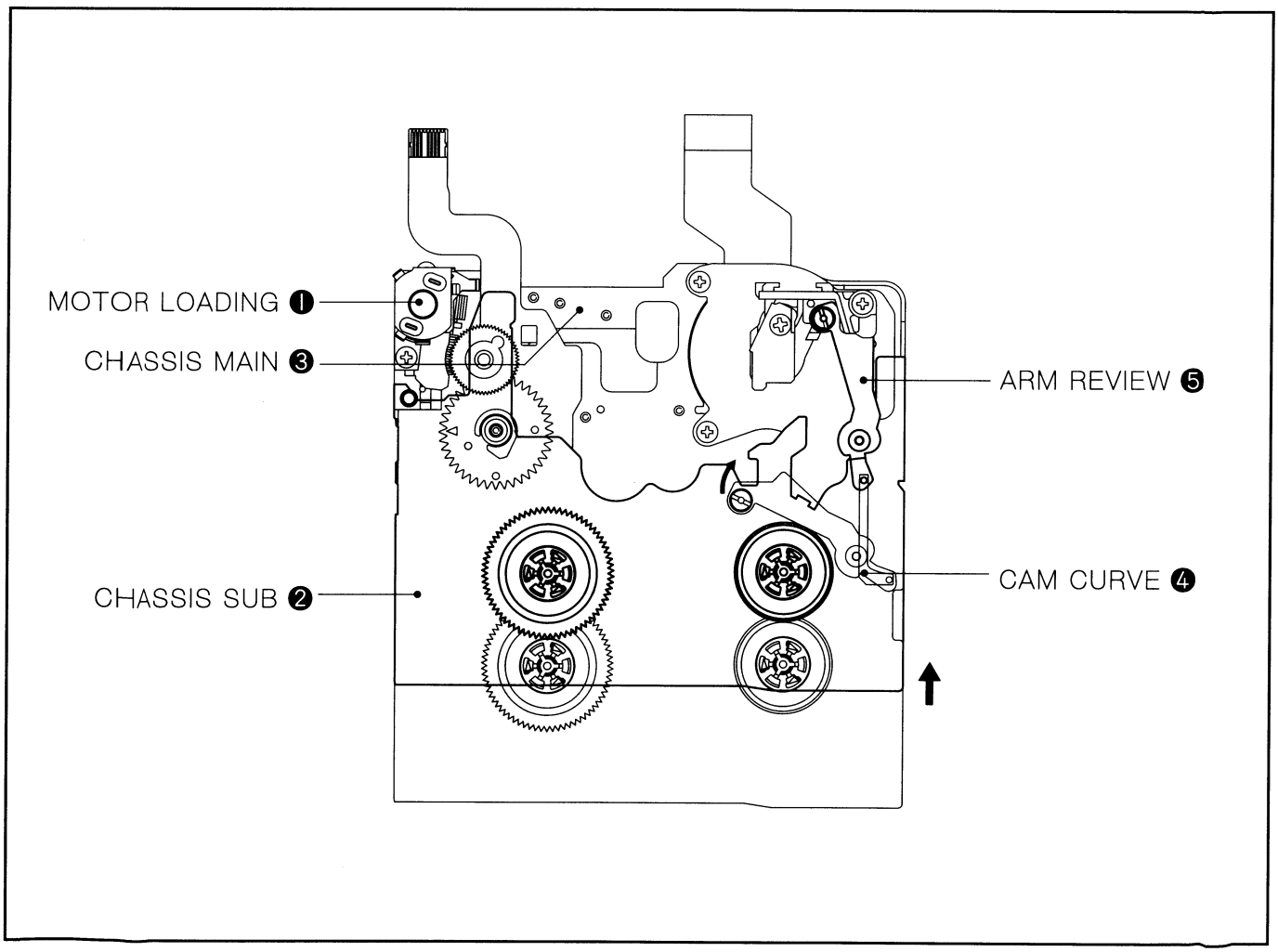


Fig 1-10

1-3-8 Pole Base S, T

Motor Loading ❶ rotates.
↓
Gear Wheel ❷ rotates.
↓
Gear Mode Switch ❸ rotates.
↓
Gear Cam Main ❹ rotates.
↓
Gear connector ❺ rotates.
↓
Arm Loading S and T are actuated by Gear Loading S ❻ and T ❼.
↓
Pole Base S ❽ and T ❾ slide along S and T rails.
↓
Pole Base S ❽ and T ❾ attach to V home of Base Drum ⓫.

Mode	Pole Base S, T
	OFF ON
EJECT	
UNLOAD	
LD 1	
LD 2	
STOP	
PLAY	

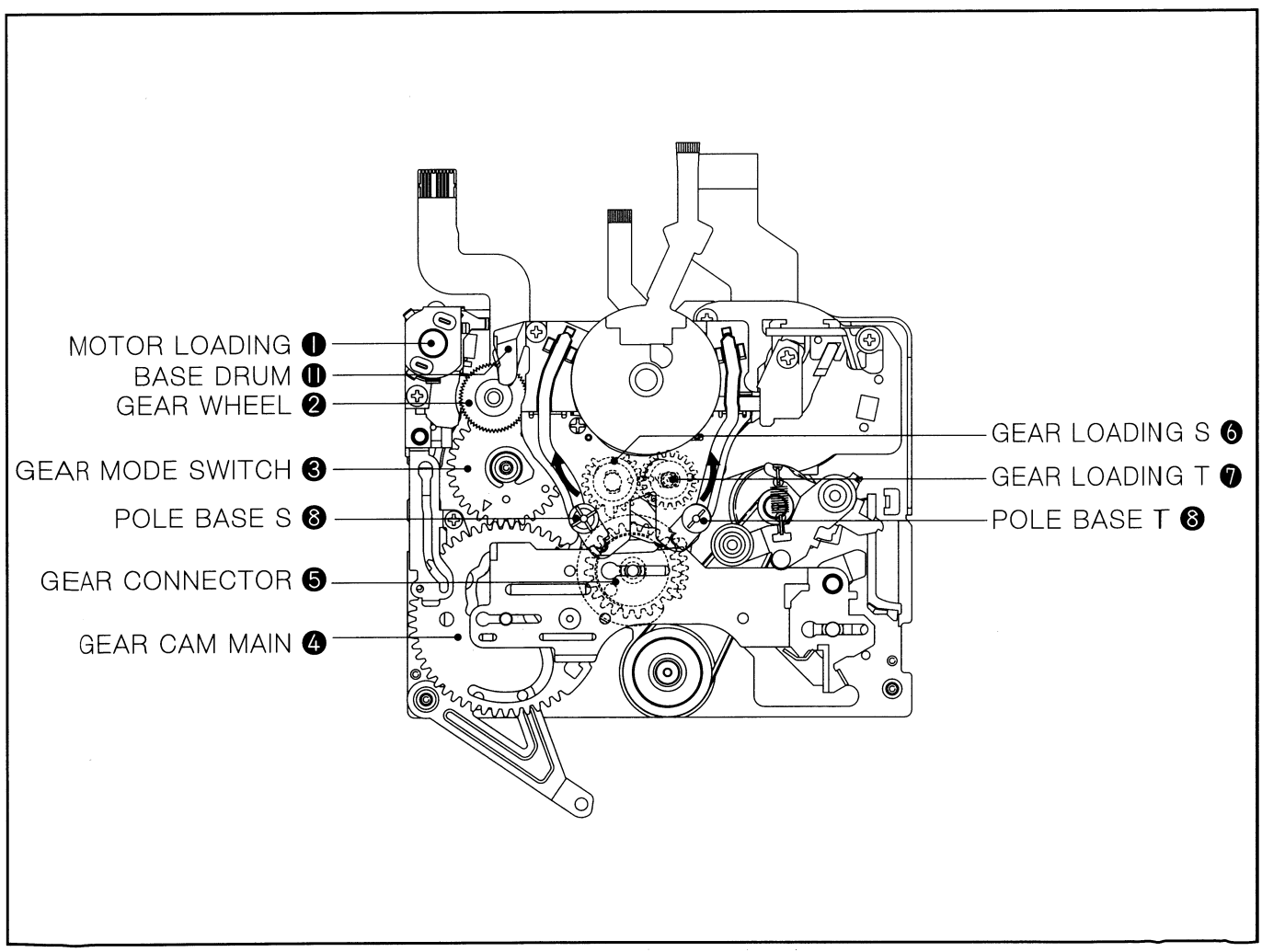


Fig 1-11

1-3-9 Reel Driving

Motor Capstan ❶ rotates.
↓
Gear Capstan ❷ rotates.
↓
Belt timming ❸ transmits rotation to Gear pully ❹.
↓
Gear Idler ❺ engages Reel Disk T ❻ or Reel Disk S ❻.
↓
Reel Disk T ❻ or Reel Disk S ❼ rotates.

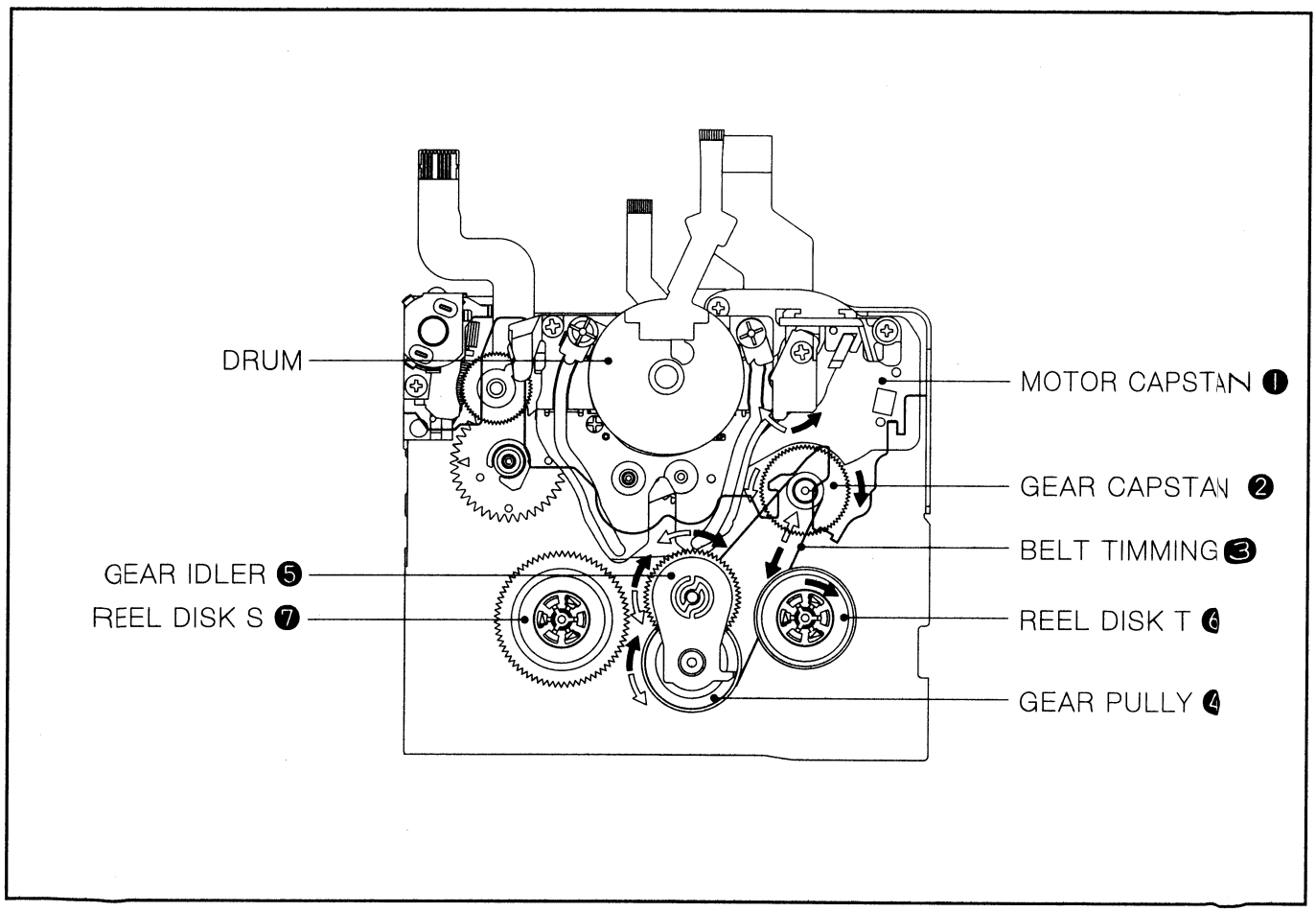
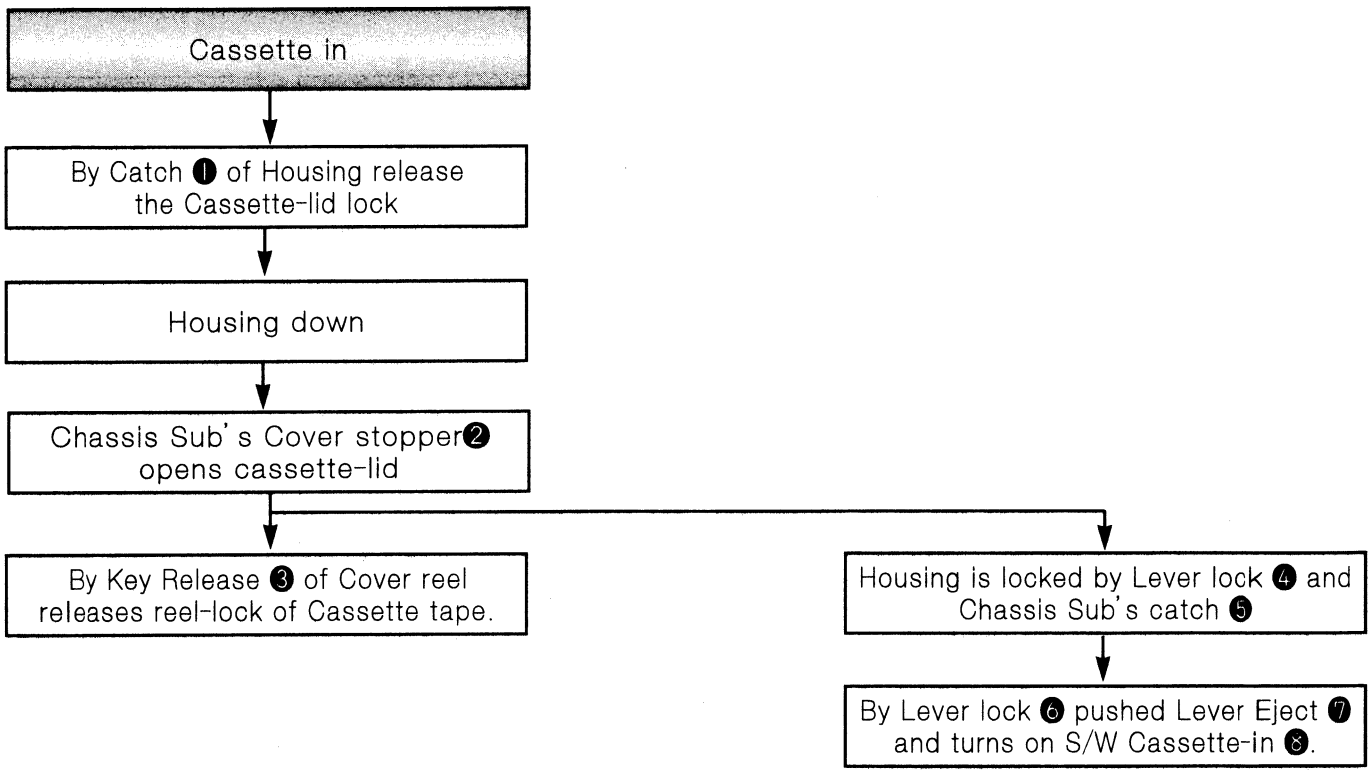


Fig 1-12

1-4 Mode Transitions

1-4-1 Cassette in → Cassette down


Cassette in
By Catch ❶ of Housing release the Cassette-lid lock
Housing down
Chassis Sub's Cover stopper❷ opens cassette-lid
By Key Release ❸ of Cover reel releases reel-lock of Cassette tape.
Housing is locked by Lever lock ❹ and Chassis Sub's catch ❺
By Lever lock ❻ pushed Lever Eject ❼ and turns on S/W Cassette-in ❽.

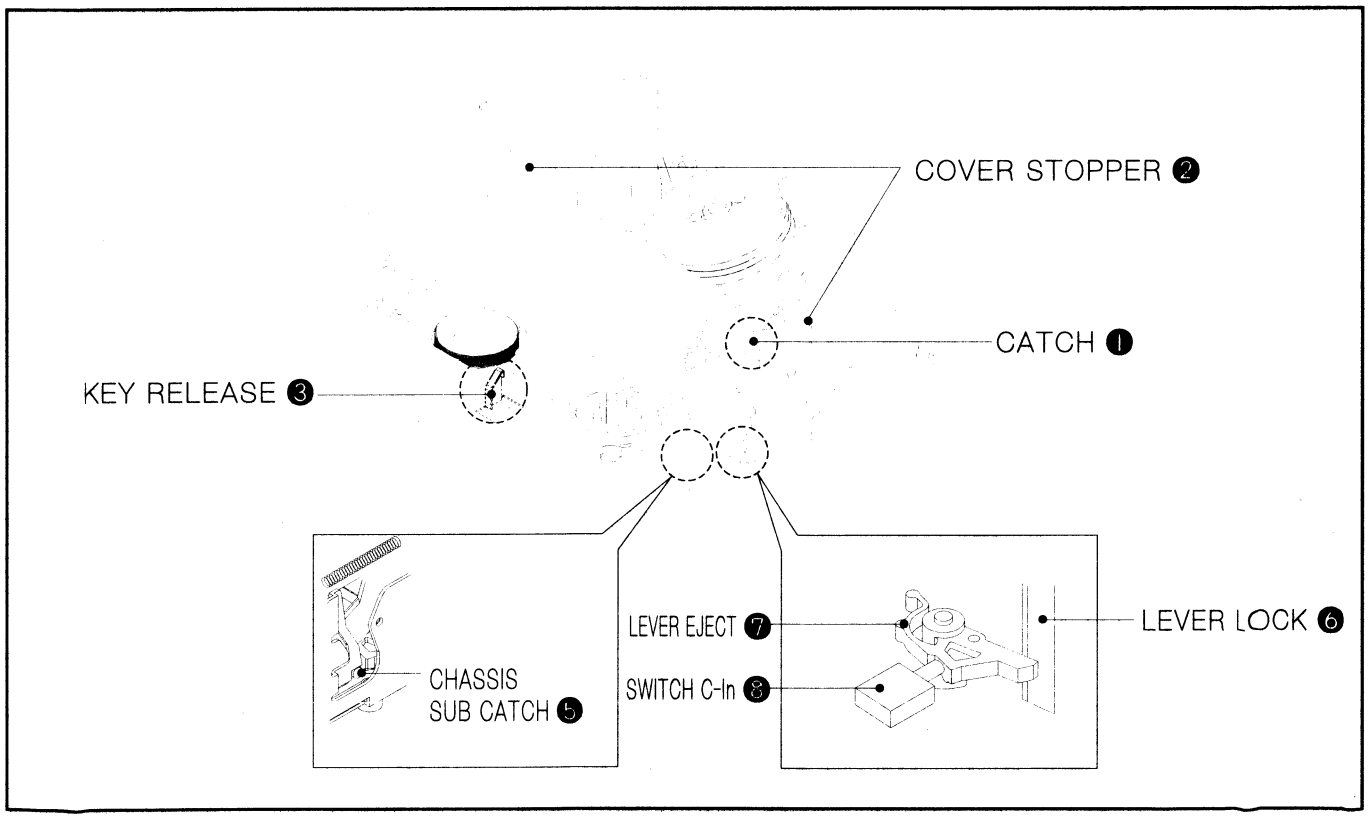
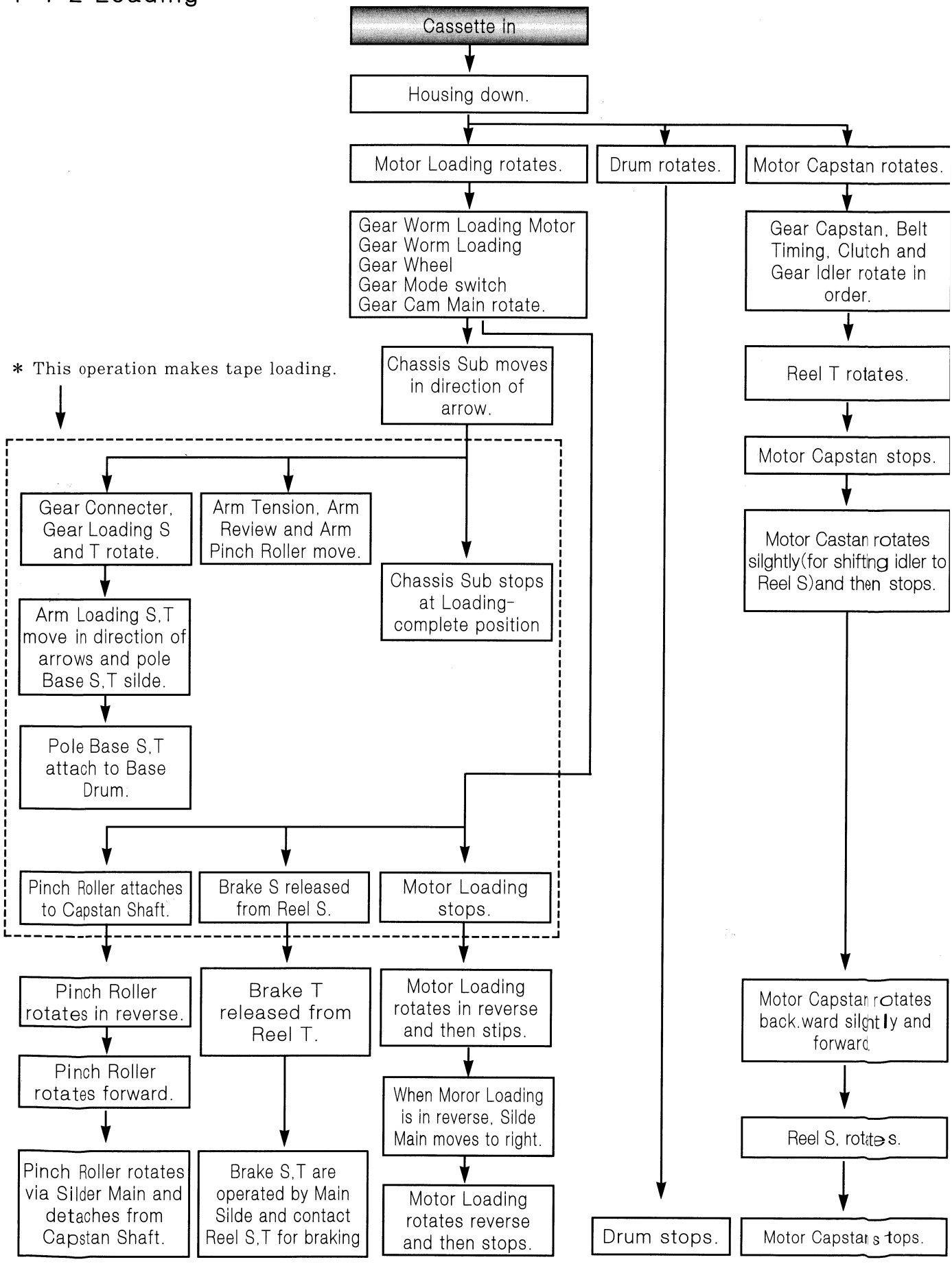


FIG 1-13

1-4-2 Loading


Cassette in
Housing down.
Motor Loading rotates.
Drum rotates.
Motor Capstan rotates.
Gear Worm Loading Motor
Gear Worm Loading
Gear Wheel
Gear Mode switch
Gear Cam Main rotate.
Gear Capstan, Belt Timing, Clutch and Gear Idler rotate in order.
* This operation makes tape loading.
Chassis Sub moves in direction of arrow.
Reel T rotates.
Motor Capstan stops.
Gear Connecter, Gear Loading S and T rotate.
Arm Tension, Arm Review and Arm Pinch Roller move.
Chassis Sub stops at Loading-complete position
Motor Castan rotates silghtly(for shifting idler to Reel S)and then stops.
Arm Loading S,T move in direction of arrows and pole Base S,T silde.
Pole Base S,T attach to Base Drum.
Pinch Roller attaches to Capstan Shaft.
Brake S released from Reel S.
Motor Loading stops.
Pinch Roller rotates in reverse.
Brake T released from Reel T.
Motor Loading rotates in reverse and then stips.
Motor Capstan rotates back.ward silghtly and forward.
Pinch Roller rotates forward.
When Moror Loading is in reverse, Silde Main moves to right.
Reel S, rotates.
Pinch Roller rotates via Silder Main and detaches from Capstan Shaft.
Brake S,T are operated by Main Silde and contact Reel S,T for braking
Motor Loading rotates reverse and then stops.
Drum stops.
Motor Capstan stops.

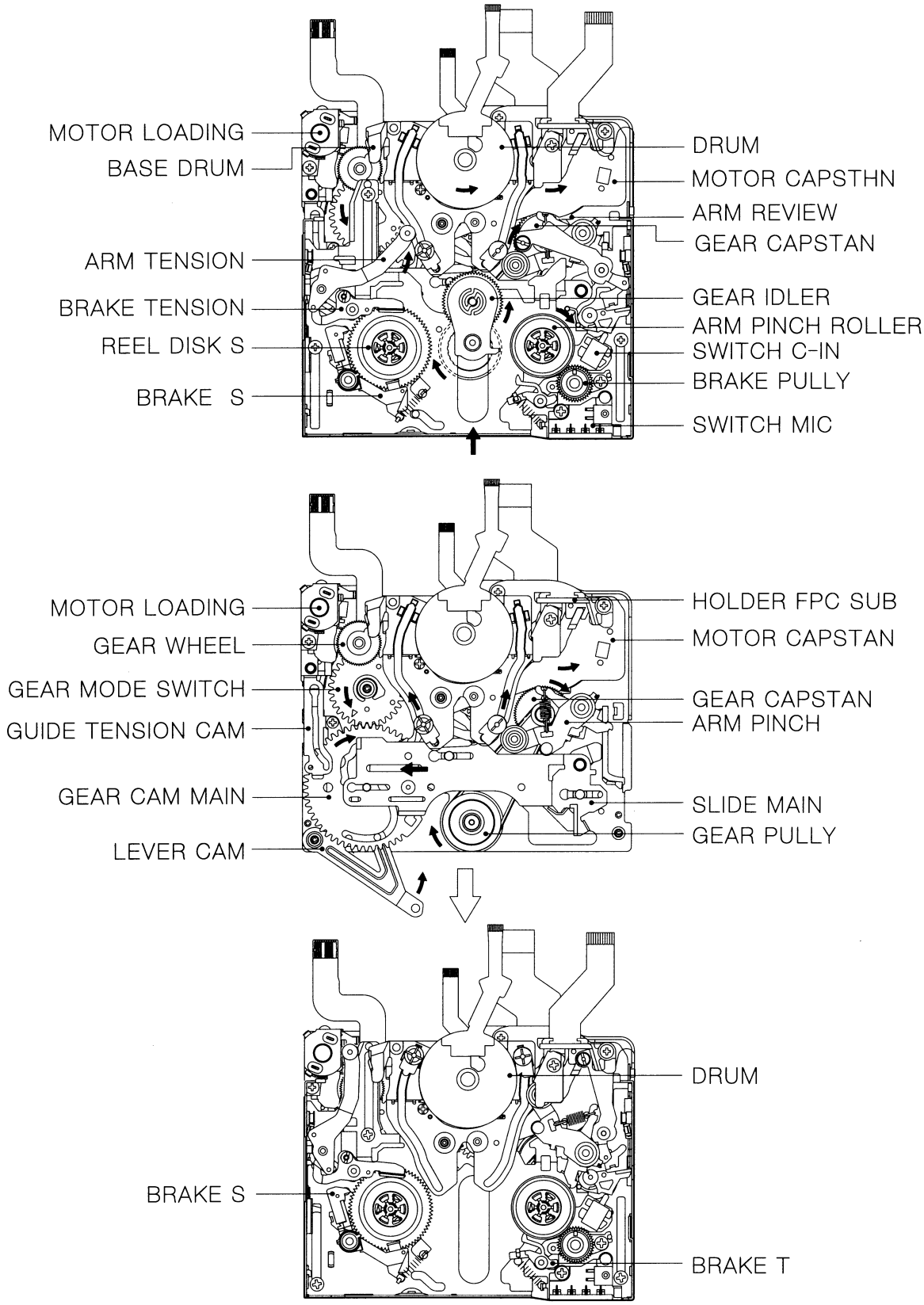
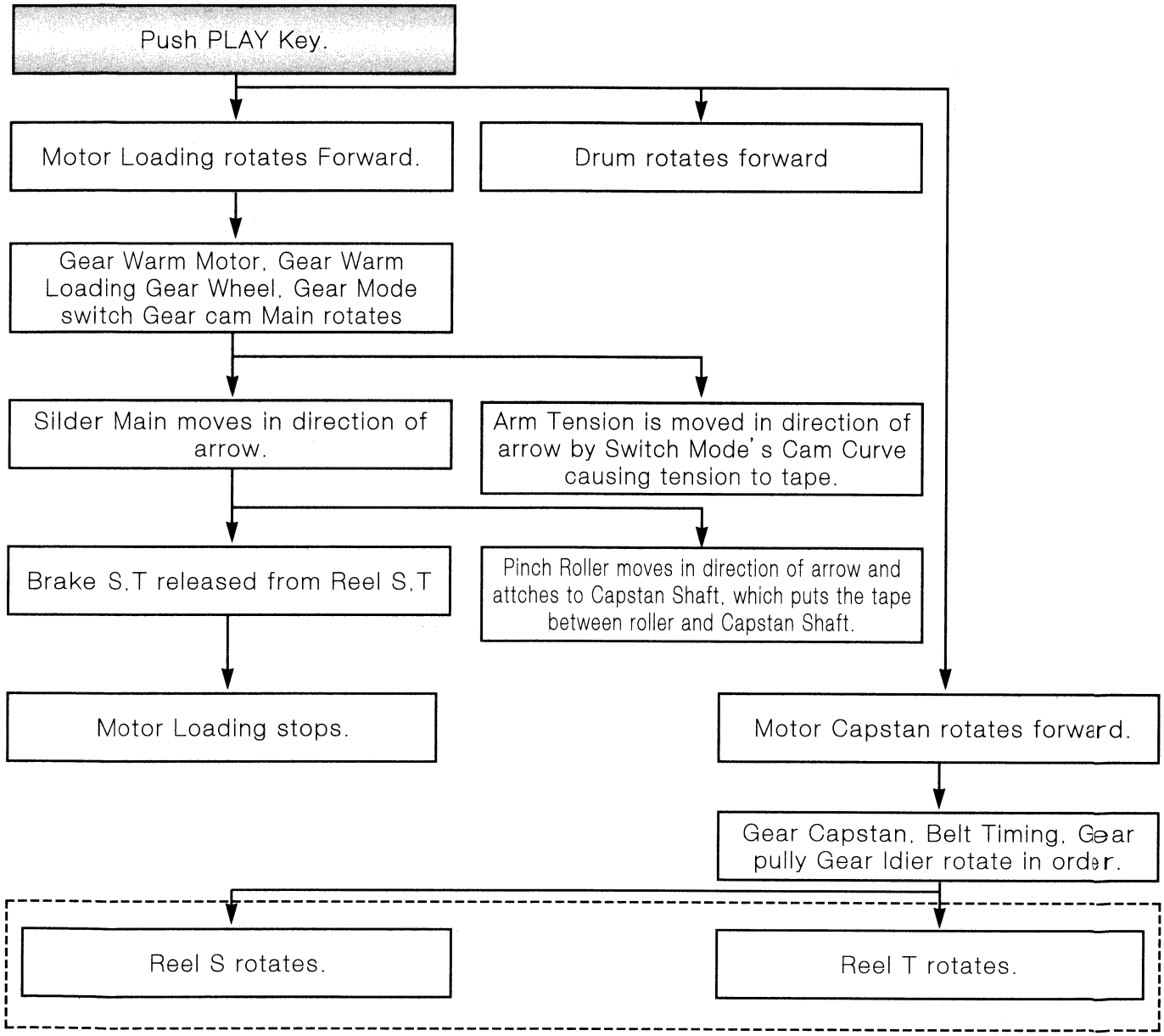

MOTOR LOADING
BASE DRUM
ARM TENSION
BRAKE TENSION
REEL DISK S
BRAKE S
DRUM
MOTOR CAPSTHN
ARM REVIEW
GEAR CAPSTAN
GEAR IDLER
ARM PINCH ROLLER
SWITCH C-IN
BRAKE PULLY
SWITCH MIC
MOTOR LOADING
GEAR WHEEL
GEAR MODE SWITCH
GUIDE TENSION CAM
GEAR CAM MAIN
LEVER CAM
HOLDER FPC SUB
MOTOR CAPSTAN
GEAR CAPSTAN
ARM PINCH
SLIDE MAIN
GEAR PULLY
BRAKE S
DRUM
BRAKE T

Fig 1-14

1-4-3 Stop → Play


Push PLAY Key.
Motor Loading rotates Forward.
Drum rotates forward
Gear Warm Motor, Gear Warm Loading Gear Wheel, Gear Mode switch Gear cam Main rotates
Silder Main moves in direction of arrow.
Arm Tension is moved in direction of arrow by Switch Mode's Cam Curve causing tension to tape.
Brake S,T released from Reel S,T
Pinch Roller moves in direction of arrow and attches to Capstan Shaft, which puts the tape between roller and Capstan Shaft.
Motor Loading stops.
Motor Capstan rotates forward.
Gear Capstan, Belt Timing, Gear pully Gear Idier rotate in order.
Reel S rotates.
Reel T rotates.

* Tape is fed by the winding operation of Motor Capstan.

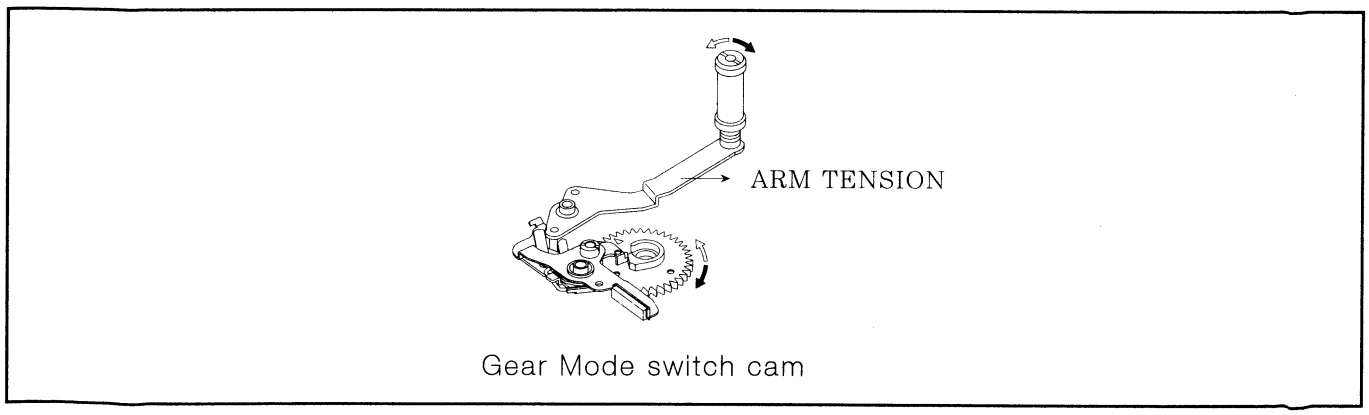


Fig 1-15

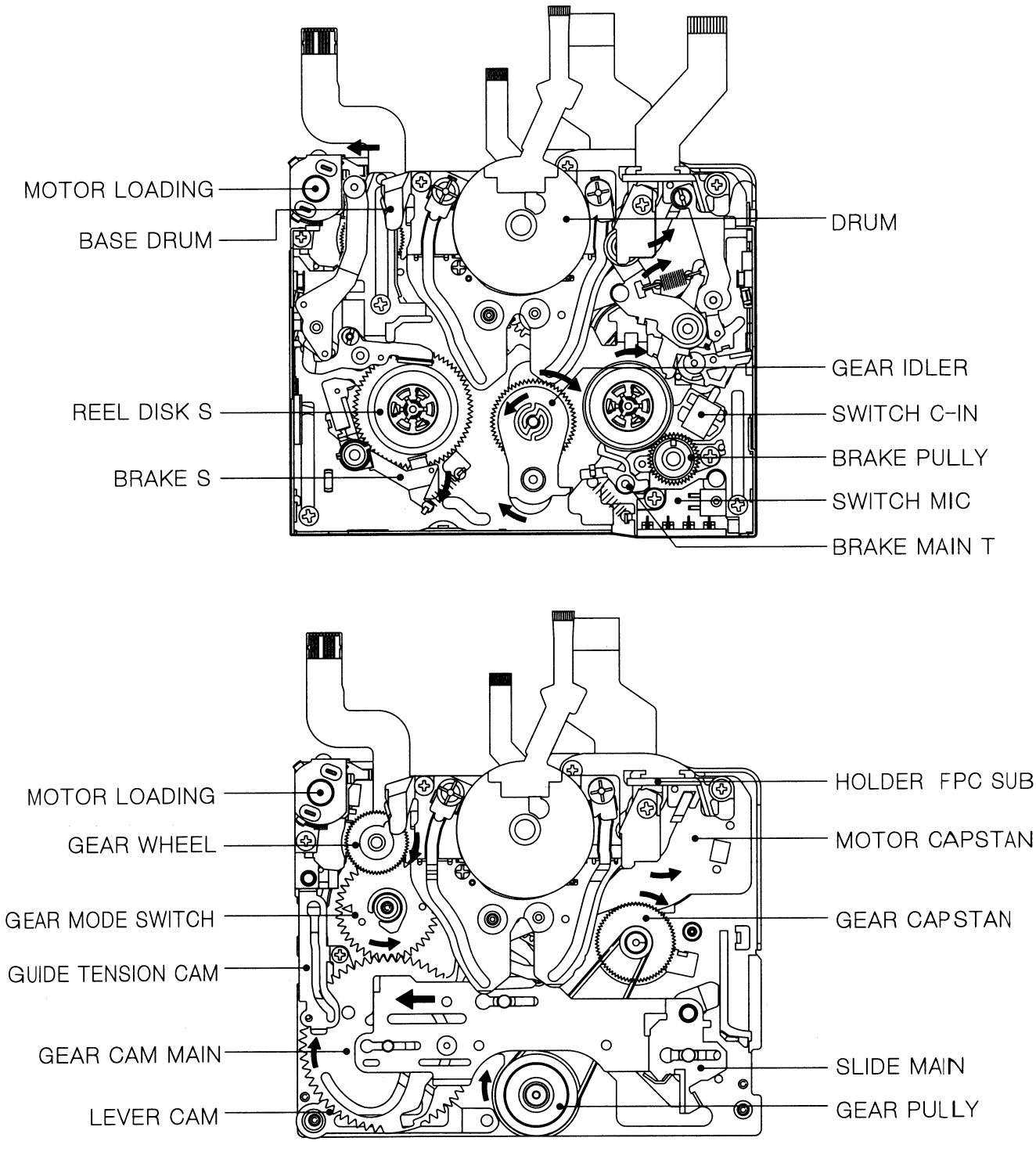
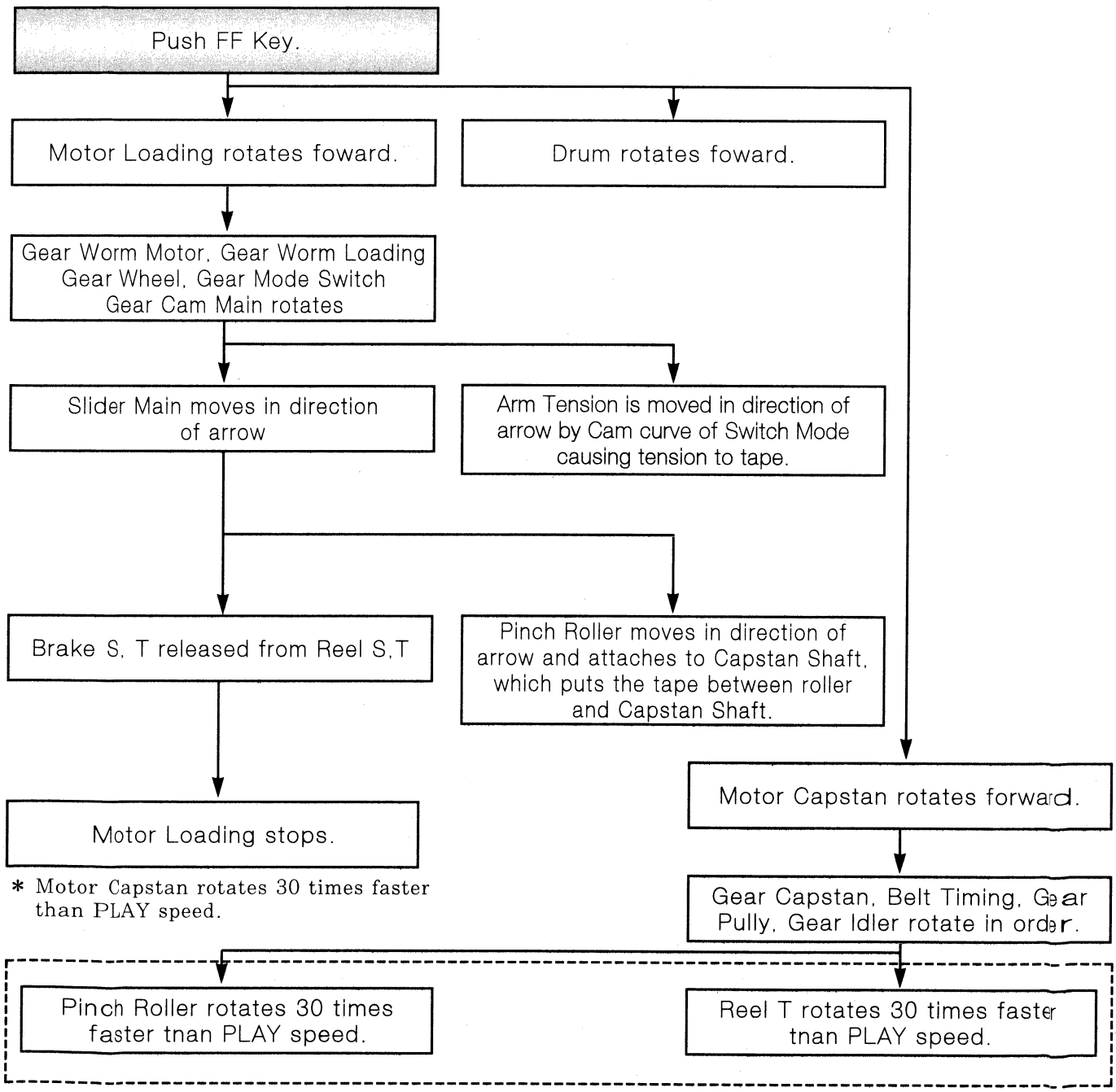

MOTOR LOADING
BASE DRUM
REEL DISK S
BRAKE S
DRUM
GEAR IDLER
SWITCH C-IN
BRAKE PULLY
SWITCH MIC
BRAKE MAIN T
MOTOR LOADING
GEAR WHEEL
GEAR MODE SWITCH
GUIDE TENSION CAM
GEAR CAM MAIN
LEVER CAM
HOLDER FPC SUB
MOTOR CAPSTAN
GEAR CAPSTAN
SLIDE MAIN
GEAR PULLY

fig 1-16

1-4-4 Stop → FF


Push FF Key.
Motor Loading rotates foward.
Drum rotates foward.
Gear Worm Motor, Gear Worm Loading Gear Wheel, Gear Mode Switch Gear Cam Main rotates
Slider Main moves in direction of arrow
Arm Tension is moved in direction of arrow by Cam curve of Switch Mode causing tension to tape.
Brake S, T released from Reel S,T
Pinch Roller moves in direction of arrow and attaches to Capstan Shaft, which puts the tape between roller and Capstan Shaft.
Motor Capstan rotates forward.
Motor Loading stops.
* Motor Capstan rotates 30 times faster than PLAY speed.
Gear Capstan, Belt Timing, Gear Pully, Gear Idler rotate in order.
Pinch Roller rotates 30 times faster tnan PLAY speed.
Reel T rotates 30 times faster tnan PLAY speed.

* This operation feeds tape 30 times faster than PLAY speed.

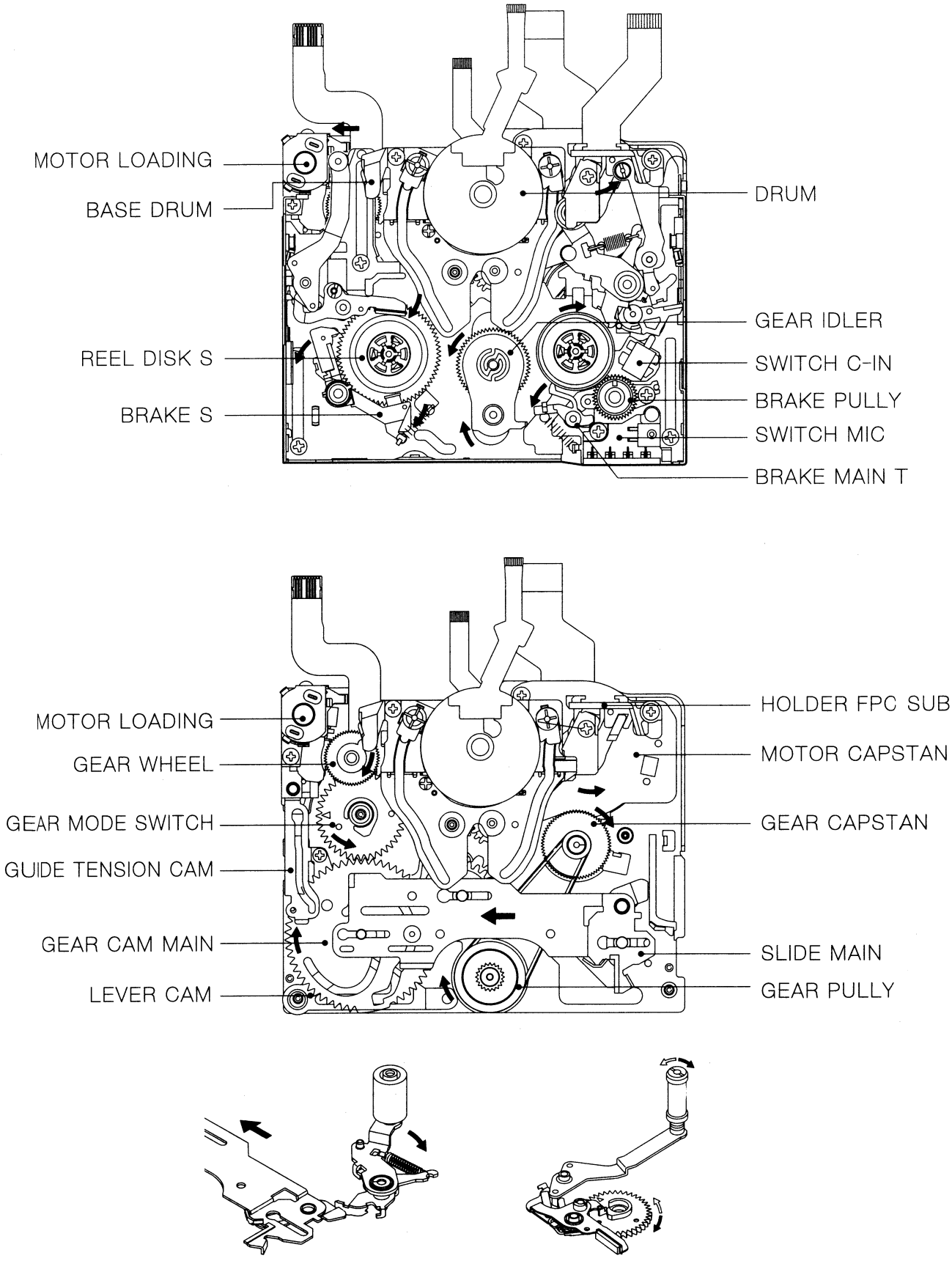
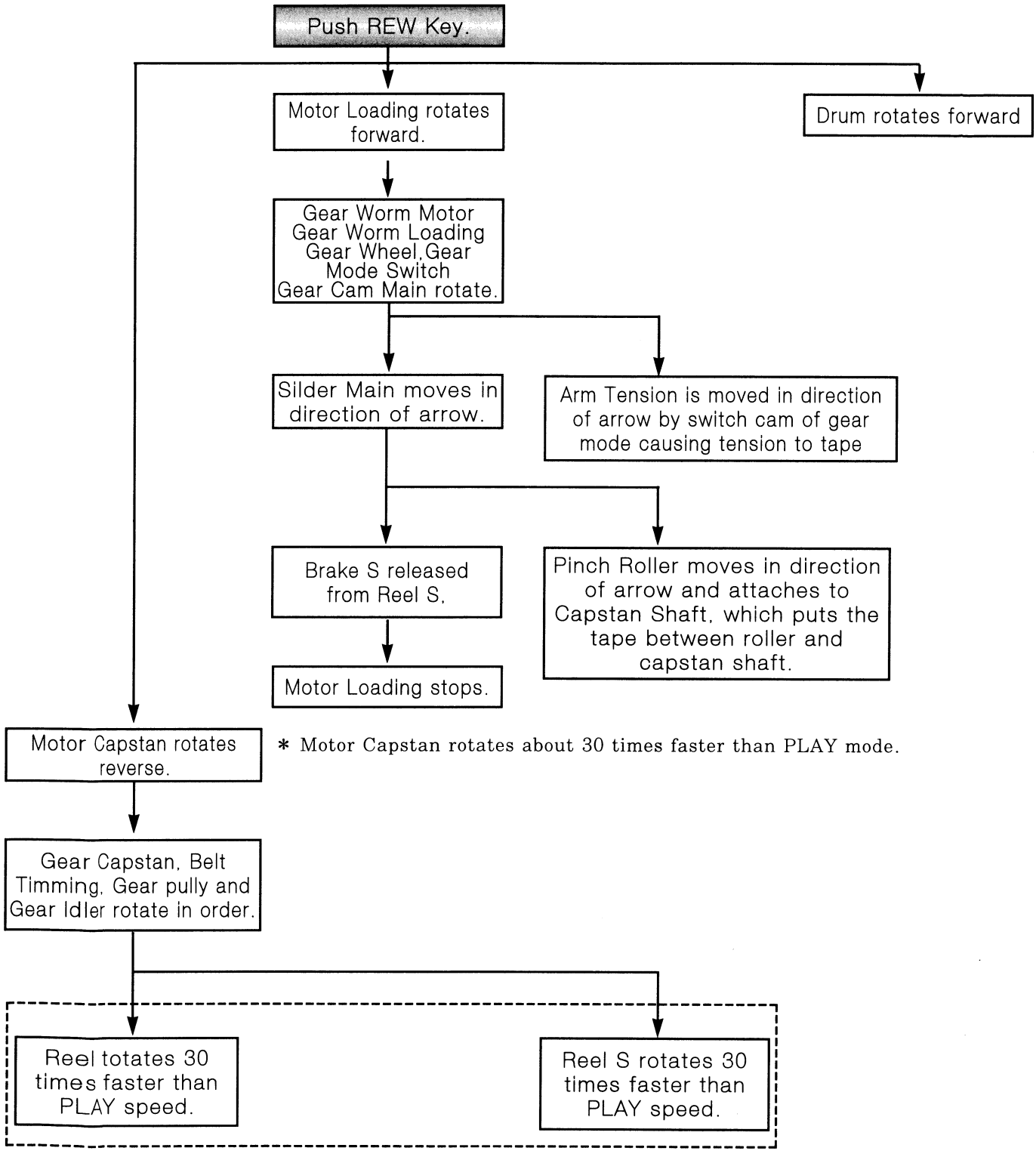

MOTOR LOADING
BASE DRUM
REEL DISK S
BRAKE S
DRUM
GEAR IDLER
SWITCH C-IN
BRAKE PULLY
SWITCH MIC
BRAKE MAIN T
MOTOR LOADING
GEAR WHEEL
GEAR MODE SWITCH
GUIDE TENSION CAM
GEAR CAM MAIN
LEVER CAM
HOLDER FPC SUB
MOTOR CAPSTAN
GEAR CAPSTAN
SLIDE MAIN
GEAR PULLY

Fig 1-17

1-4-5 Stop → REW


Push REW Key.
Motor Loading rotates forward.
Drum rotates forward
Gear Worm Motor Gear Worm Loading Gear Wheel,Gear Mode Switch Gear Cam Main rotate.
Silder Main moves in direction of arrow.
Arm Tension is moved in direction of arrow by switch cam of gear mode causing tension to tape
Brake S released from Reel S.
Pinch Roller moves in direction of arrow and attaches to Capstan Shaft, which puts the tape between roller and capstan shaft.
Motor Loading stops.
Motor Capstan rotates reverse.
* Motor Capstan rotates about 30 times faster than PLAY mode.
Gear Capstan, Belt Timming, Gear pully and Gear Idler rotate in order.
Reel totates 30 times faster than PLAY speed.
Reel S rotates 30 times faster than PLAY speed.

* This operation feeds tape 30 times faster than PLAY mode.

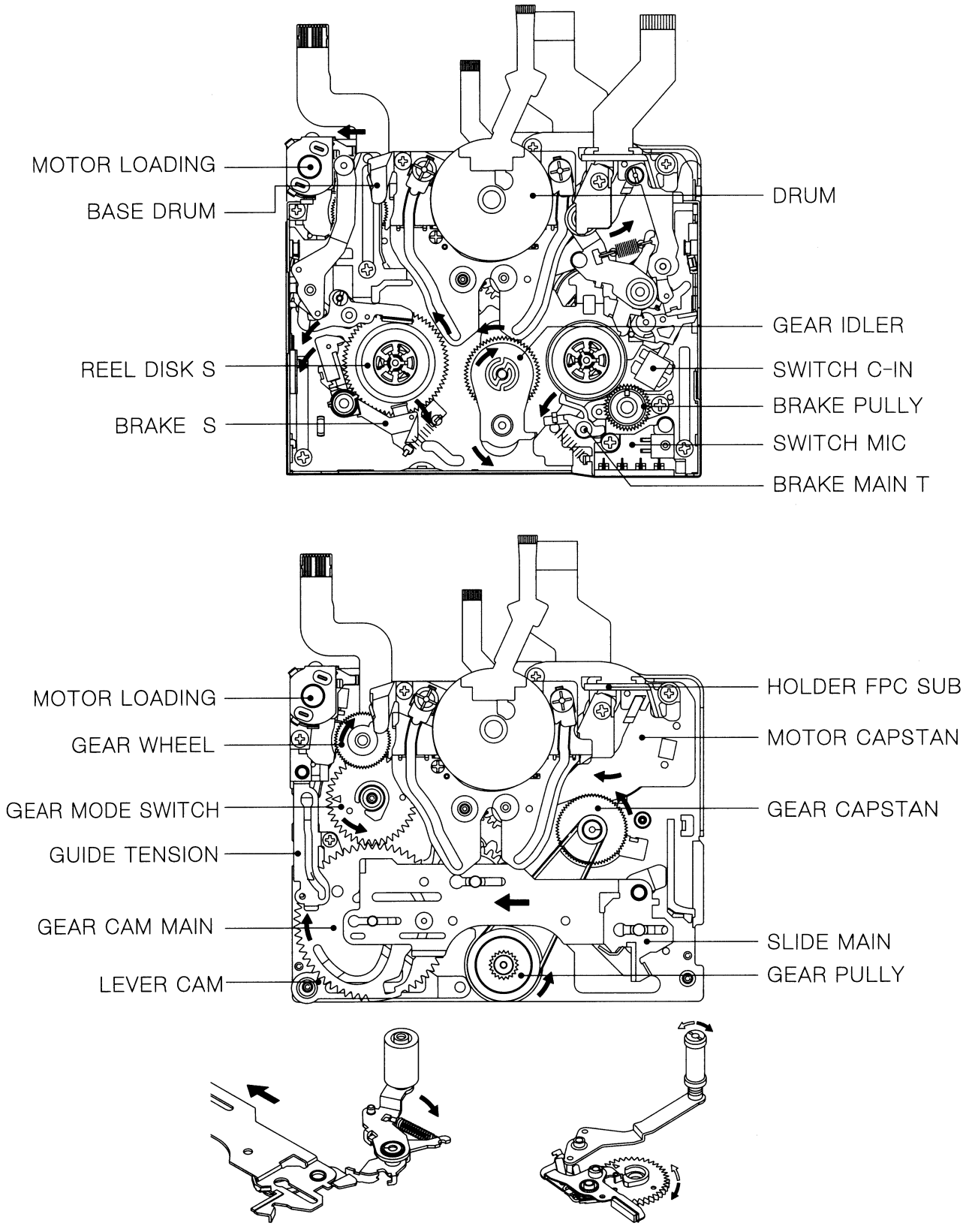
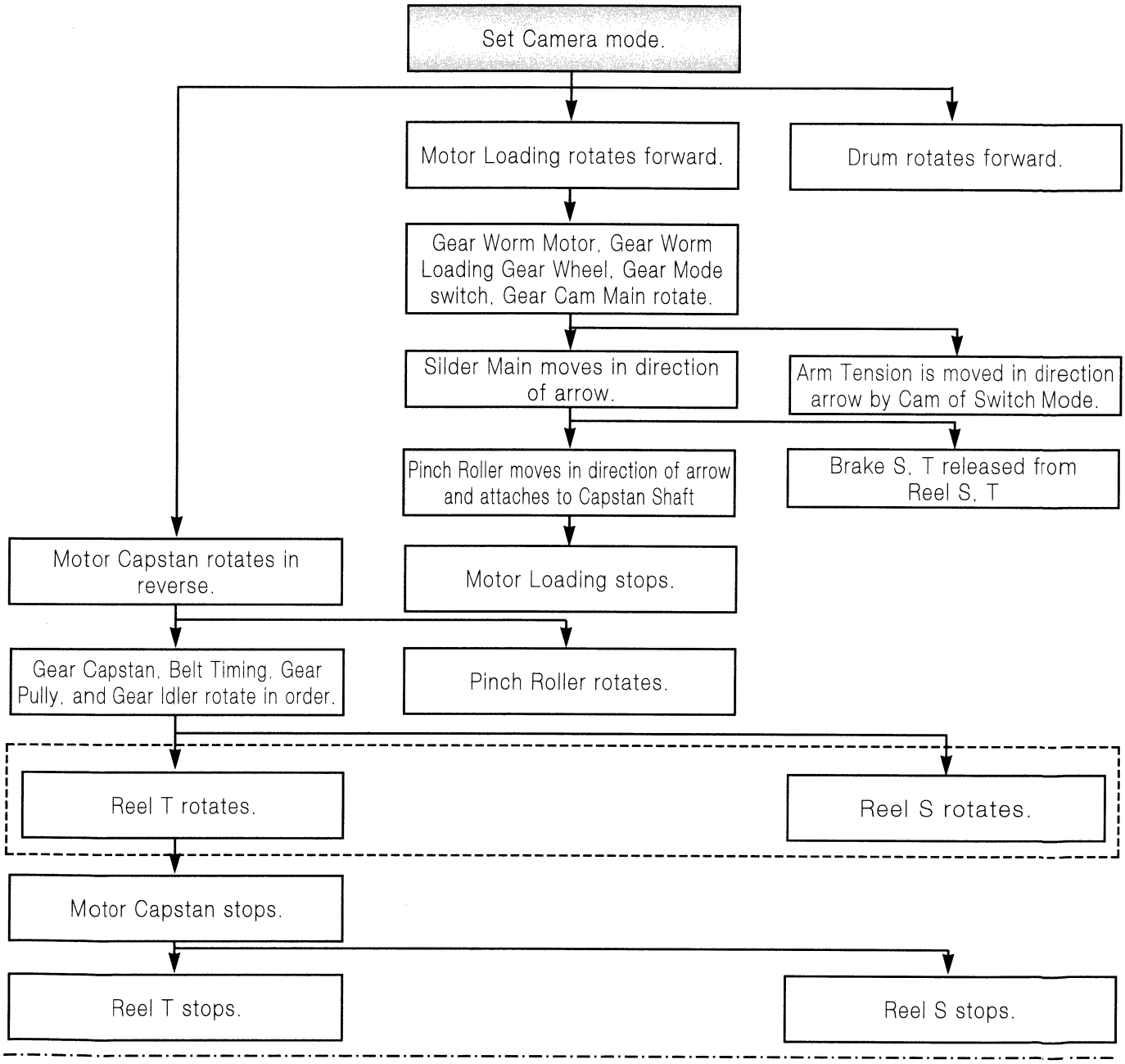
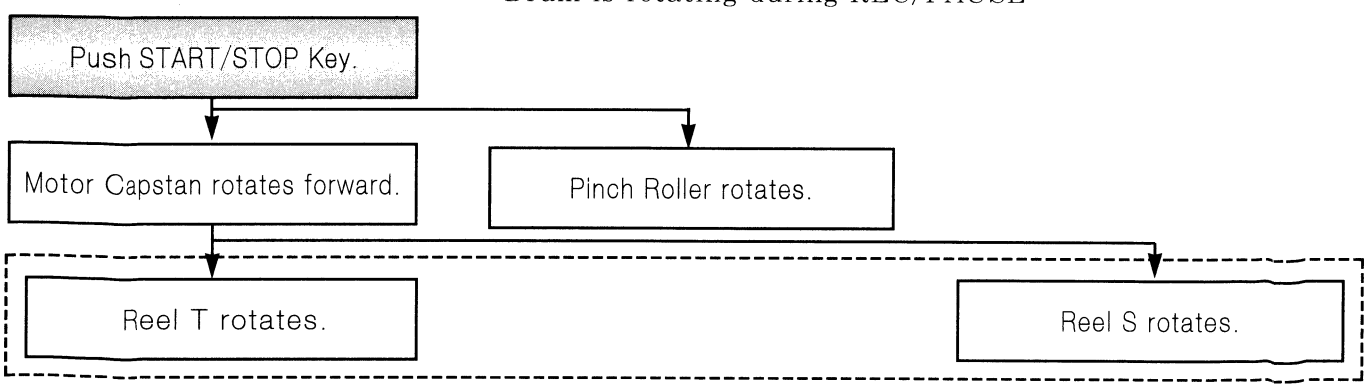

MOTOR LOADING
BASE DRUM
REEL DISK S
BRAKE S
DRUM
GEAR IDLER
SWITCH C-IN
BRAKE PULLY
SWITCH MIC
BRAKE MAIN T
MOTOR LOADING
GEAR WHEEL
GEAR MODE SWITCH
GUIDE TENSION
GEAR CAM MAIN
LEVER CAM
HOLDER FPC SUB
MOTOR CAPSTAN
GEAR CAPSTAN
SLIDE MAIN
GEAR PULLY

Fig 1-18

1-4-6 Stop → REC


Set Camera mode.
Motor Loading rotates forward.
Drum rotates forward.
Gear Worm Motor, Gear Worm Loading Gear Wheel, Gear Mode switch, Gear Cam Main rotate.
Silder Main moves in direction of arrow.
Arm Tension is moved in direction arrow by Cam of Switch Mode.
Pinch Roller moves in direction of arrow and attaches to Capstan Shaft
Brake S, T released from Reel S, T
Motor Capstan rotates in reverse.
Motor Loading stops.
Gear Capstan, Belt Timing, Gear Pully, and Gear Idler rotate in order.
Pinch Roller rotates.
Reel T rotates.
Reel S rotates.
Motor Capstan stops.
Reel T stops.
Reel S stops.

* Drum is rotating during REC/PAUSE



* Tape is wound to Reel T by this operation.

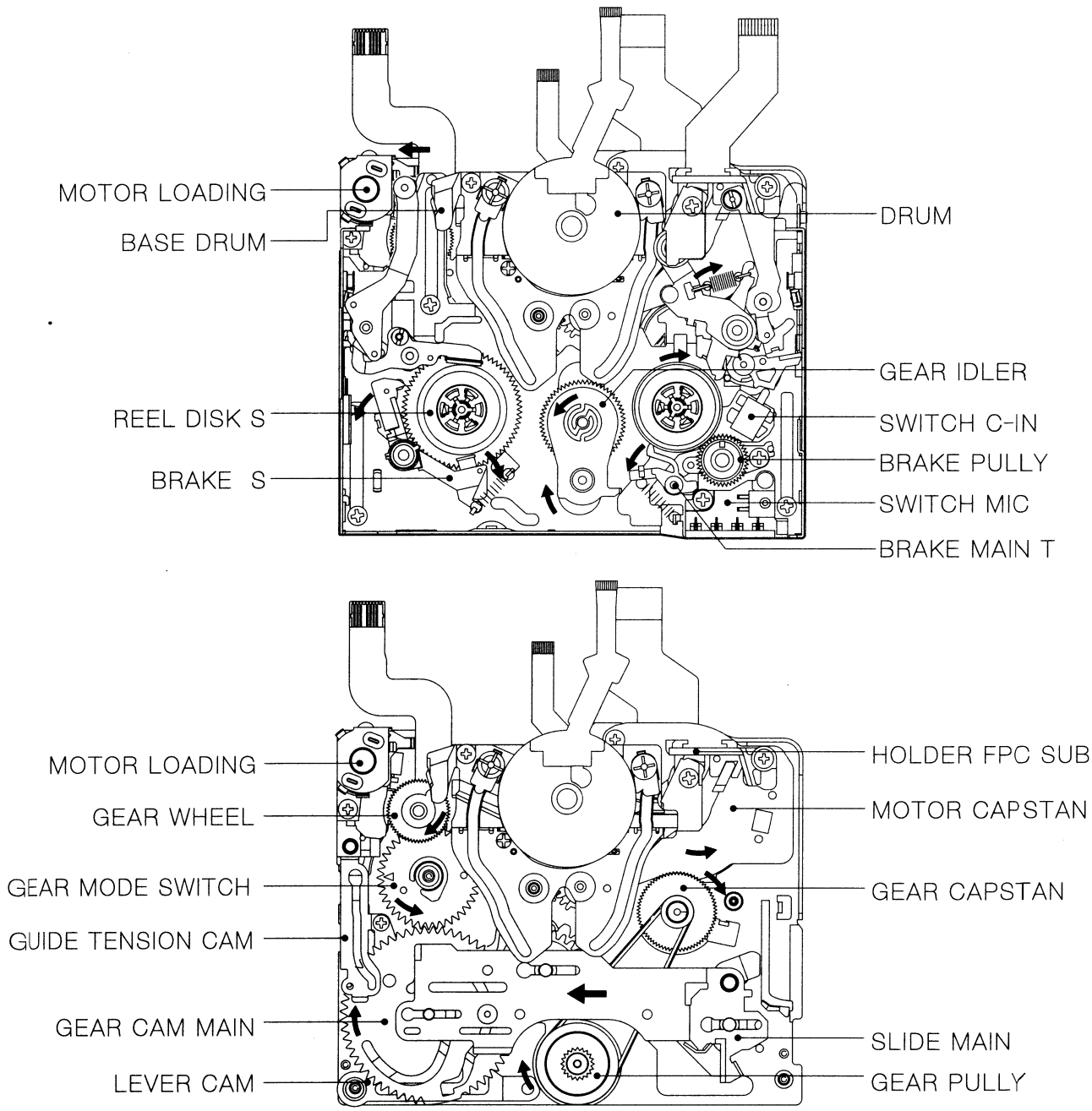
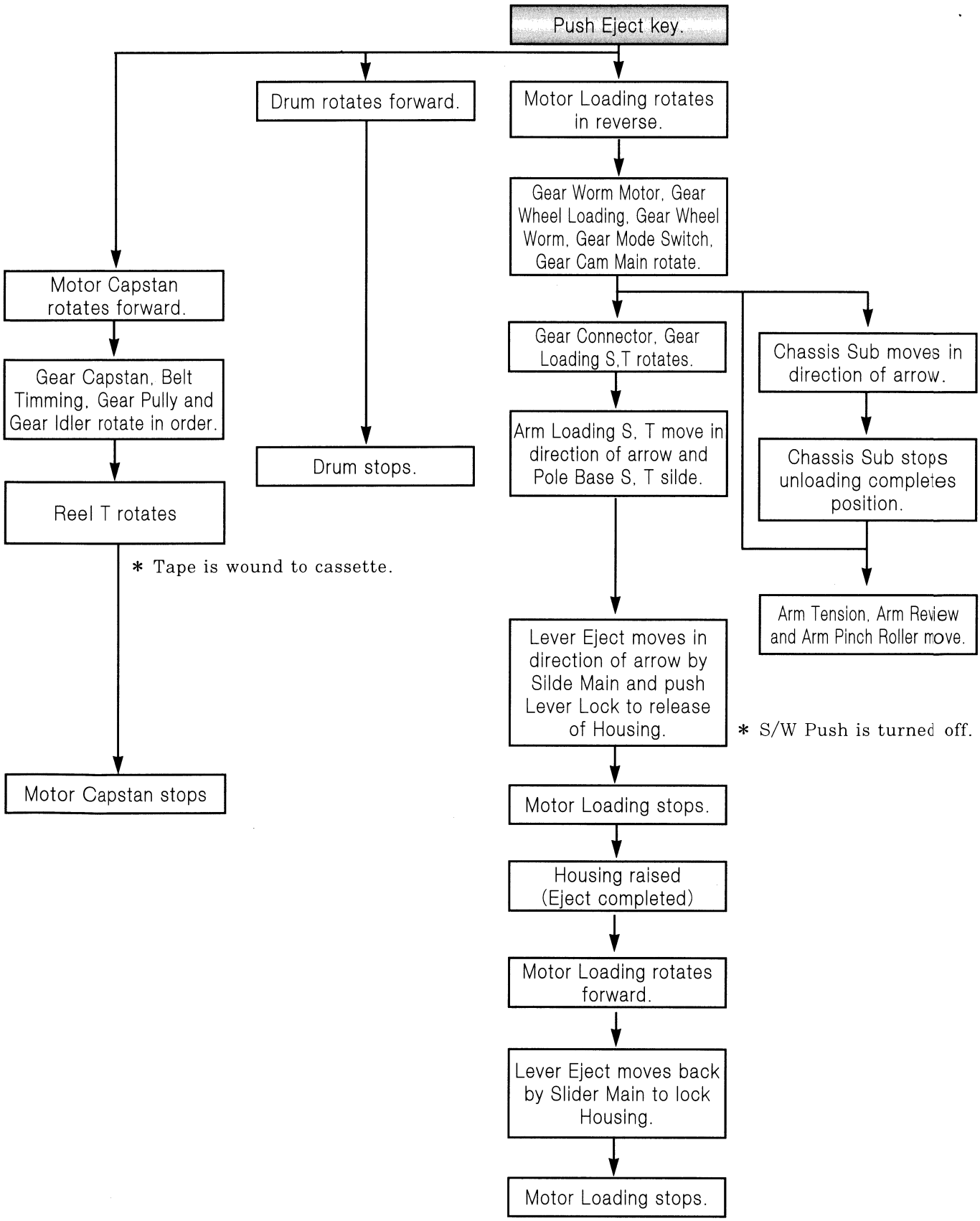
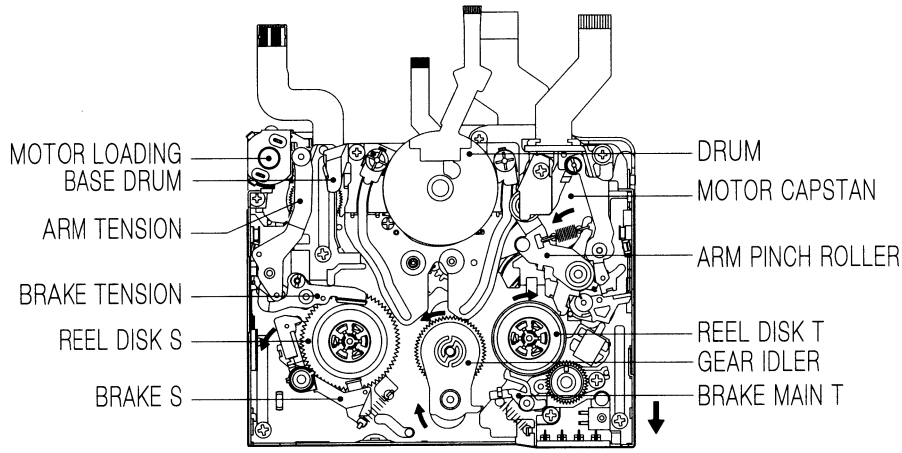
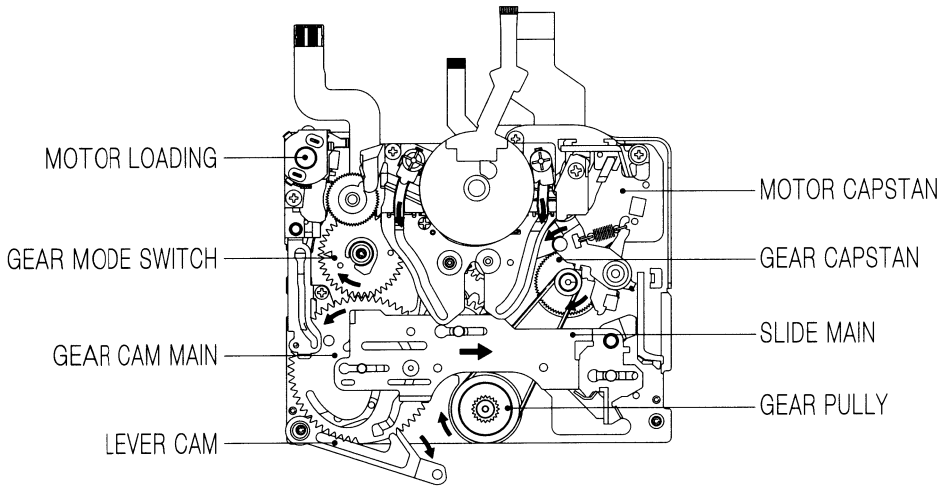

MOTOR LOADING
BASE DRUM
REEL DISK S
BRAKE S
DRUM
GEAR IDLER
SWITCH C-IN
BRAKE PULLY
SWITCH MIC
BRAKE MAIN T
MOTOR LOADING
GEAR WHEEL
GEAR MODE SWITCH
GUIDE TENSION CAM
GEAR CAM MAIN
LEVER CAM
HOLDER FPC SUB
MOTOR CAPSTAN
GEAR CAPSTAN
SLIDE MAIN
GEAR PULLY

Fig 1-19

1-4-7 Stop → Unload


Push Eject key.
Drum rotates forward.
Motor Loading rotates in reverse.
Gear Worm Motor, Gear Wheel Loading, Gear Wheel Worm, Gear Mode Switch, Gear Cam Main rotate.
Motor Capstan rotates forward.
Gear Capstan, Belt Timming, Gear Pully and Gear Idler rotate in order.
Reel T rotates
* Tape is wound to cassette.
Motor Capstan stops
Drum stops.
Gear Connector, Gear Loading S,T rotates.
Arm Loading S, T move in direction of arrow and Pole Base S, T silde.
Chassis Sub moves in direction of arrow.
Chassis Sub stops unloading completes position.
Arm Tension, Arm Review and Arm Pinch Roller move.
Lever Eject moves in direction of arrow by Silde Main and push Lever Lock to release of Housing.
* S/W Push is turned off.
Motor Loading stops.
Housing raised (Eject completed)
Motor Loading rotates forward.
Lever Eject moves back by Slider Main to lock Housing.
Motor Loading stops.


MOTOR LOADING
BASE DRUM
ARM TENSION
BRAKE TENSION
REEL DISK S
BRAKE S
DRUM
MOTOR CAPSTAN
ARM PINCH ROLLER
REEL DISK T
GEAR IDLER
BRAKE MAIN T


MOTOR LOADING
GEAR MODE SWITCH
GEAR CAM MAIN
LEVER CAM
MOTOR CAPSTAN
GEAR CAPSTAN
SLIDE MAIN
GEAR PULLY

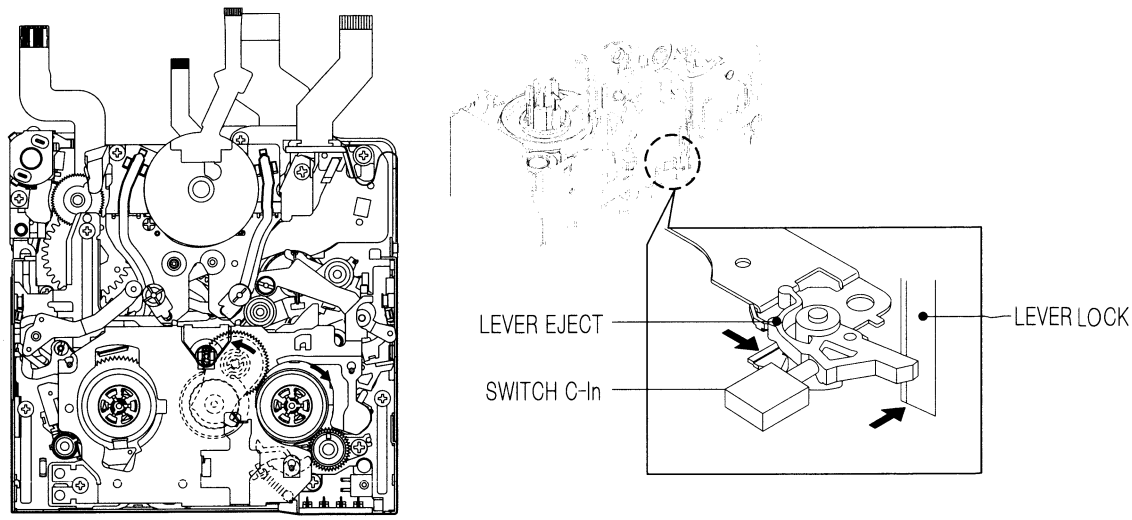
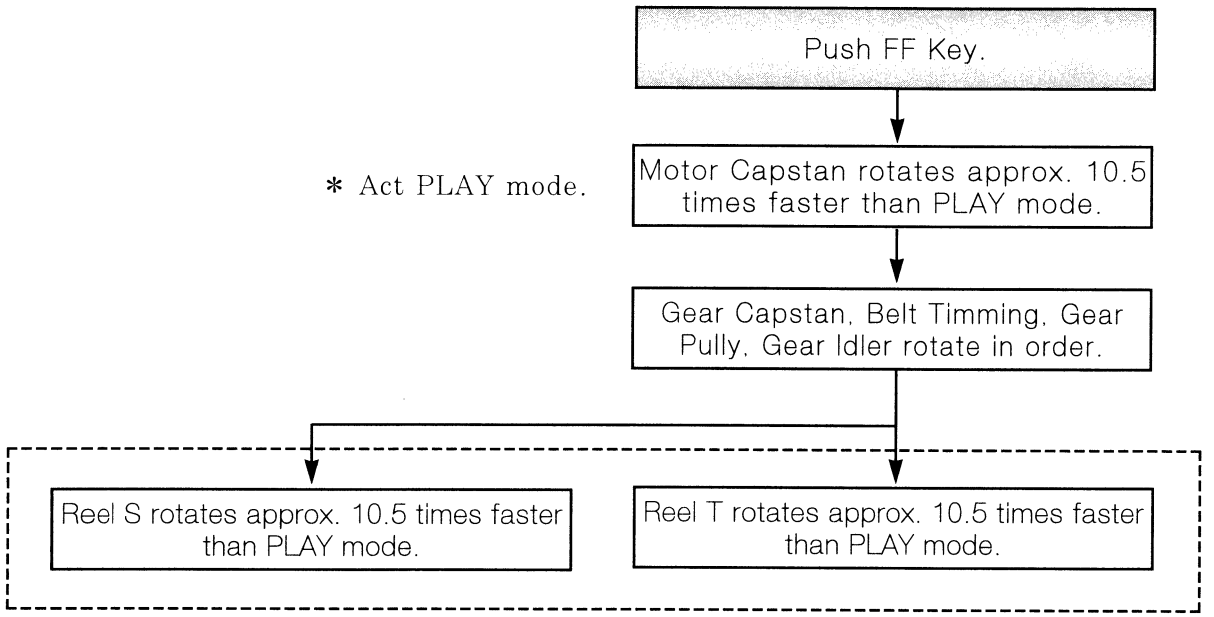

LEVER EJECT
SWITCH C-In
LEVER LOCK

Fig 1-20

1-4-8 CUE


Push FF Key.
* Act PLAY mode.
Motor Capstan rotates approx. 10.5 times faster than PLAY mode.
Gear Capstan, Belt Timming, Gear Pully, Gear Idler rotate in order.
Reel S rotates approx. 10.5 times faster than PLAY mode.
Reel T rotates approx. 10.5 times faster than PLAY mode.

* Tape fed by Motor Capstan is wound up to Reel T.

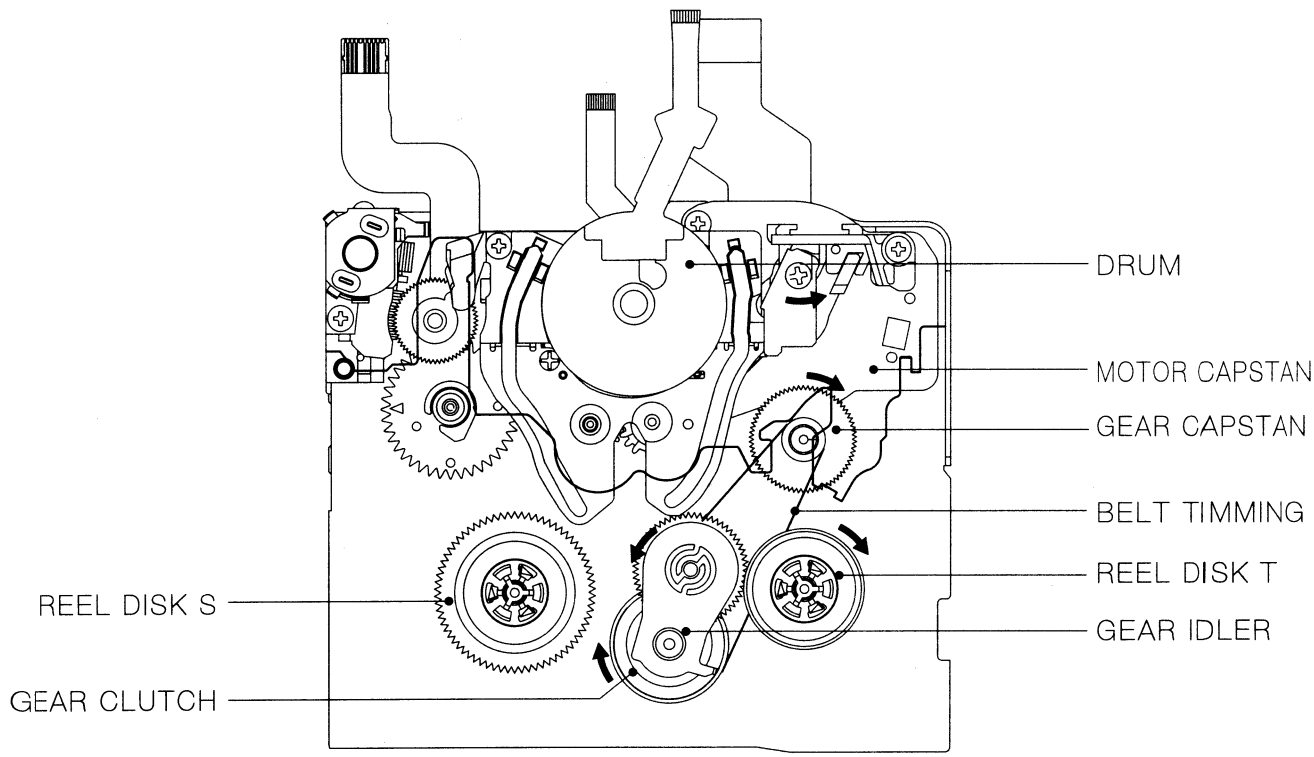
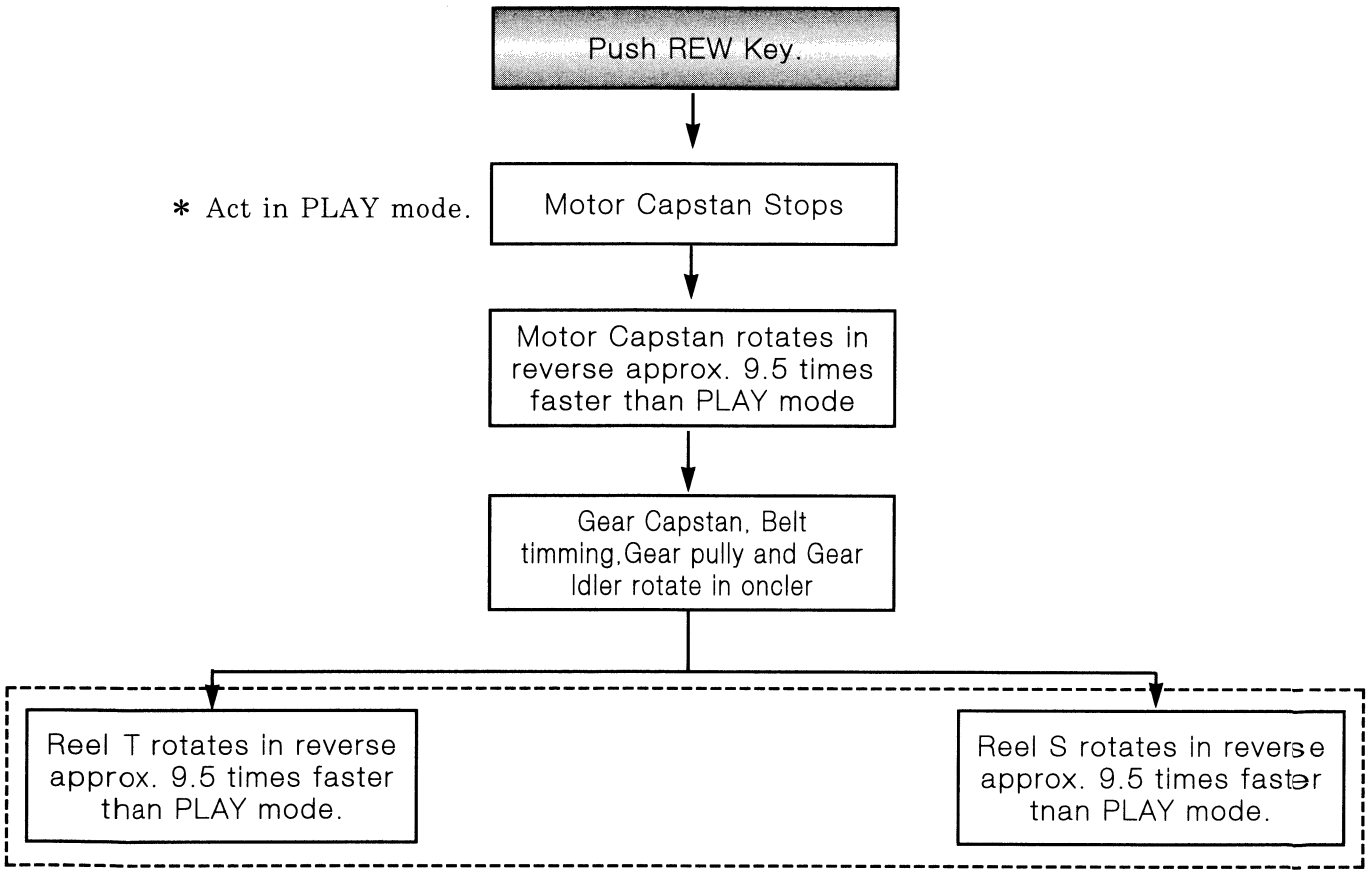

DRUM
MOTOR CAPSTAN
GEAR CAPSTAN
BELT TIMMING
REEL DISK T
GEAR IDLER
REEL DISK S
GEAR CLUTCH

Fig 1-21

1-4-9 REW


Push REW Key.
* Act in PLAY mode.
Motor Capstan Stops
Motor Capstan rotates in reverse approx. 9.5 times faster than PLAY mode
Gear Capstan, Belt timming,Gear pully and Gear Idler rotate in oncler
Reel T rotates in reverse approx. 9.5 times faster than PLAY mode.
Reel S rotates in reverse approx. 9.5 times faster tnan PLAY mode.

* Tape fed by Motor Capstan is wound up to Reel S.

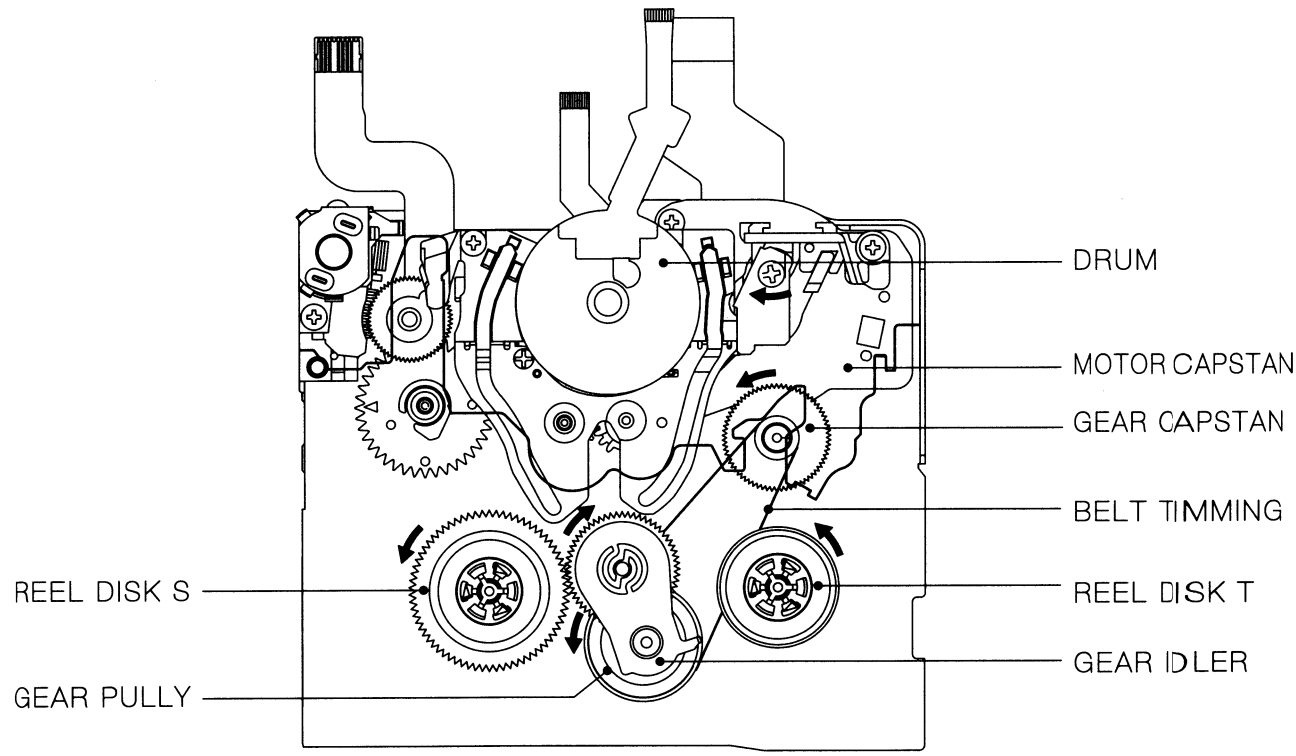

DRUM
MOTOR CAPSTAN
GEAR CAPSTAN
BELT TIMMING
REEL DISK T
GEAR IDLER
REEL DISK S
GEAR PULLY

Fig 1-22

MEMO

2. Adjustment

2-1 Operation Without Housing Assembly

1. Remove the Housing Ass'y from the recorder unit.
2. Connect the mechanical chassis to the recorder circuit to supply voltage.
3. Set to Unload mode.
4. Press the S/W Push(Keep ON status)to start loading, and push the PLAY Key.(Cover the Top/End sensor with black tape, because they do not operate.)

Note : For the removal of the Housing Ass'y refer to 3-2

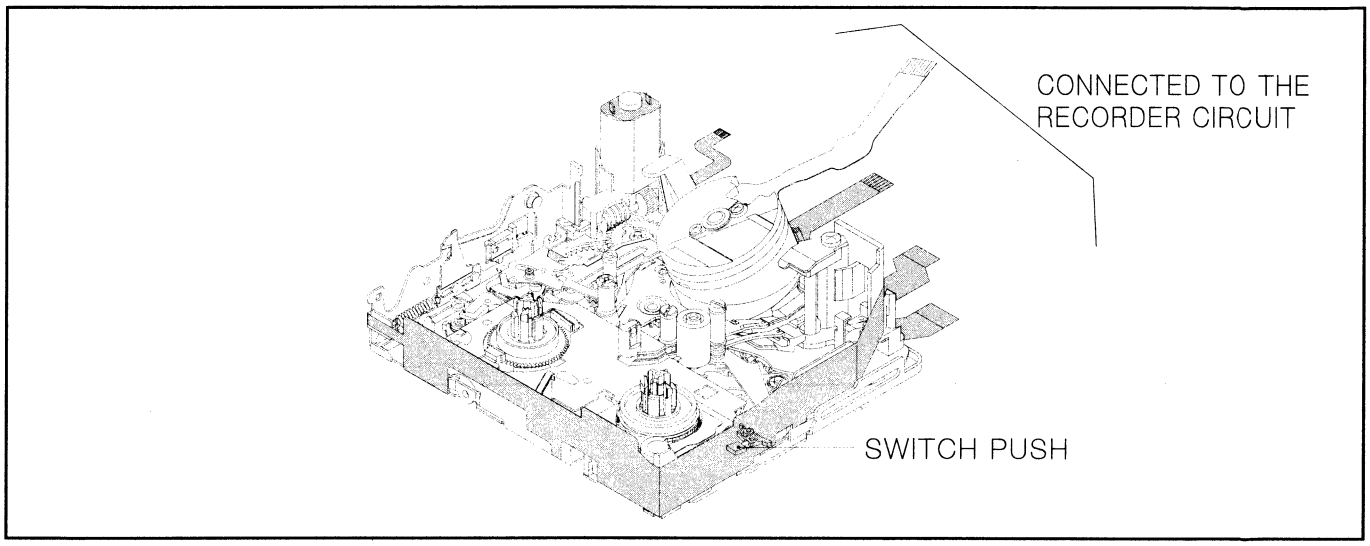


Fig 2-1

2-2 Setting Mechanical Mode(Without Recorder Circuit)

1. Set the power-supply output to approx.3V.
2. Choose the polarity (depending on whether loading or unloading).
3. Supply the voltage to the Motor Loading, and set to the desired mode.

Note : See the Table 2-1

Table 2-1

Ⓐ	Ⓑ	Movement of Chassis
+	-	Loading
-	+	Unloading

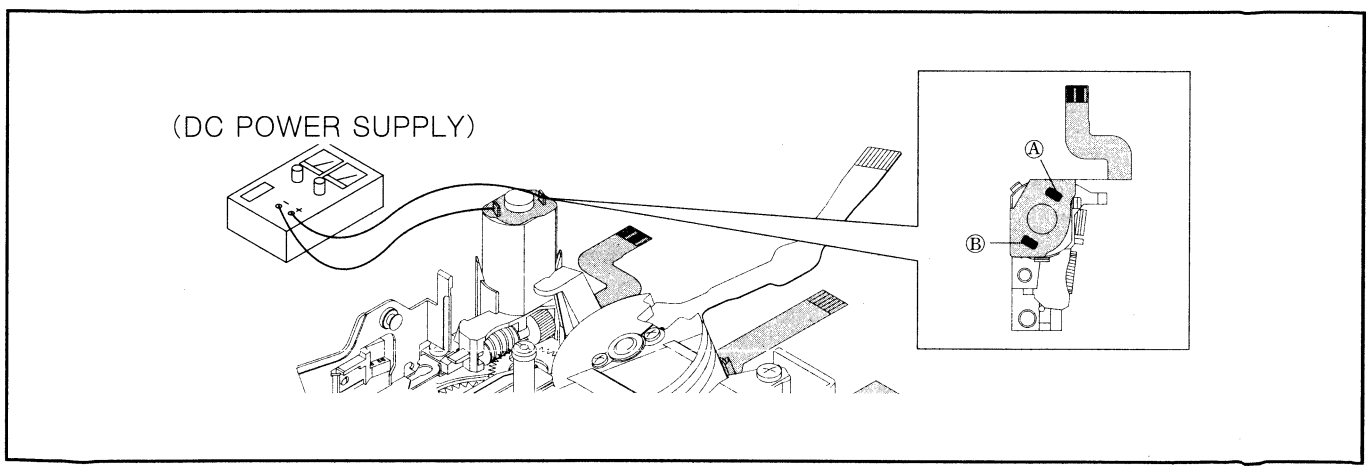


Fig 2-2

2-3 Maintenance

Carry out the following periodic maintenance checks in order to fully exercise all functions, operations and tape.
After repairing, service the set as follows:

2-3-1 Cleaning of Drum Assembly

1. Gently apply lens tissue soaked in ethyl alcohol to the Drum assembly.
   Clean the Upper Drum assembly while rotating it slowly counterclockwise(by hand).

Note: Do not rotate the motor by power or rotate the Upper Drum assembly clockwise. Also, the Head tip will be damaged if the lens tissue is moved in a perpendicular direction.
Be sure to follow these instructions when cleaning the Drum Ass'y

2-3-2 Cleaning of Tape Path

1. In EJECT mode, clean the tape path system(from Pole Tension P1 through Pole Review P7, Pinch Roller and Capstan Shaft) and the Lower Drum. Using the lens tissue soaked in ethyl alcohol.

Note: Make sure that no oil or grease adheres to the lens tissue.

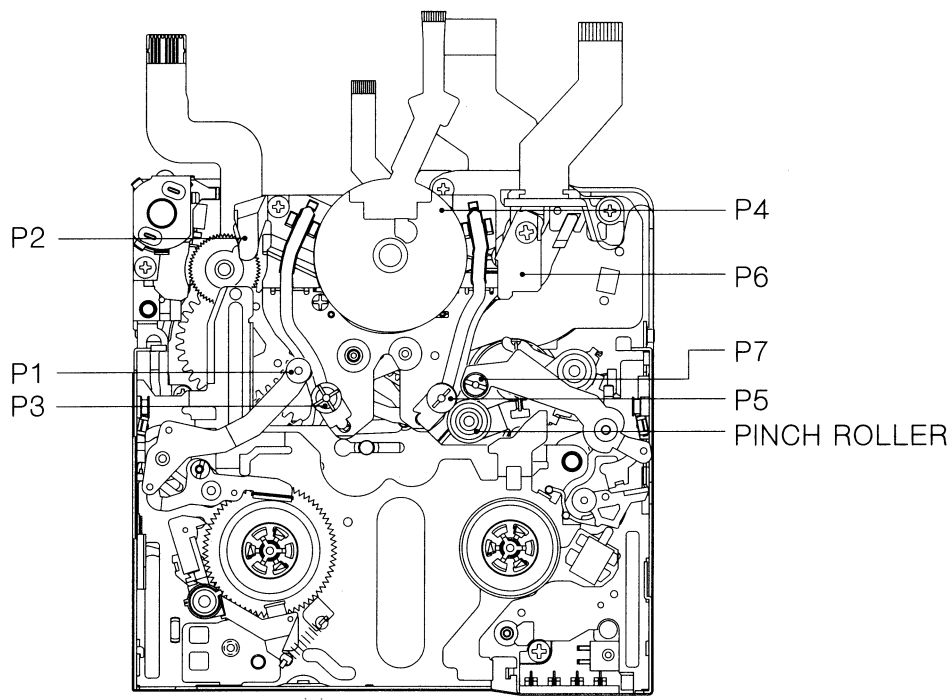


Fig 2-3

2-3-3 Periodic Maintenance and Check List

When overhauling, refer to the following table.

Table 2-2

Maintenance checks		Hours of use(H)										Remarks
		500	1000	1500	2000	2500	3000	3500	4000	4500	5000	
Tape path system	Cleaning of tape path	●	●	●	●	●	●	●	●	●	●	
	Cleaning and degaussing of drum assembly	●	●	●	●	●	●	●	●	●	●	
Driving Sustem	Capstan Shaft		▲		▲		▲		▲		▲	Never let oil get on to to the tape path surface.
	Gear Capstan		▲		▲		▲		▲		▲	
	Gear Pully Shaftt		▲		▲		▲		▲		▲	
	Belt Timing		◆		◆		◆		◆		◆	
	Motor Loading		◆		◆		◆		◆		◆	
Performance	Abnormal noise		◆	◆	◆	◆	◆	◆	◆	◆	◆	
Confirmation	Back tension		◆		◆		◆		◆		◆	
	Brake system		◆		◆		◆		◆		◆	
	PB, REV torque measurement		◆		◆		◆		◆		◆	

● : Cleaning ▲ : Oil ◆ : Confirmation

* When lubrication bearings, be sure to keep the oil free of dust. (Oil contaminated with dust might cause the bearings to wear out or seize.)

* A "drop" of oil is defined as the amount attached to the tip of a ø 2㎜ stick as shown in Fig. 2-4.

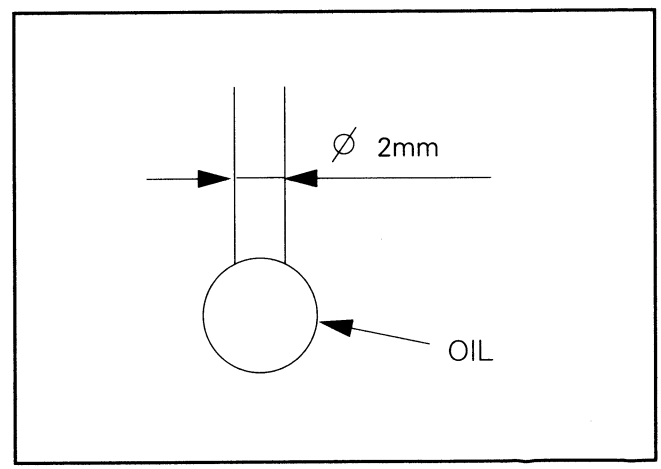


Fig 2-4

2-4 Mechanical Check and Adjustment

2-4-1 Tension Regulator Adjustment

2-4-1(A) DISASSEMBLY

1. Refer to 3-2 to remove the Housing Ass' y

2-4-1(B) ADJUSTMENT

1. Set to PB mode (without cassette tape).
2. Check that the distance between external surface of Holder Loading and center of Arm Tension is 0~1㎜. (Fig 2-5)
3. If necessary, proceed to step 4.
4. If the Arm Tension ❶ is located inside the position specified, adjust the Band Adjust Tension ❷ toward arrow A. (If it is located outside, adjust toward arrow B.)

Note: Check if the Arm Tension can be moved toward arrow C in PB mode.

2-4-1(C) REASSEMBLY

1. Refer to 3-2 to mount the Housing Ass' y

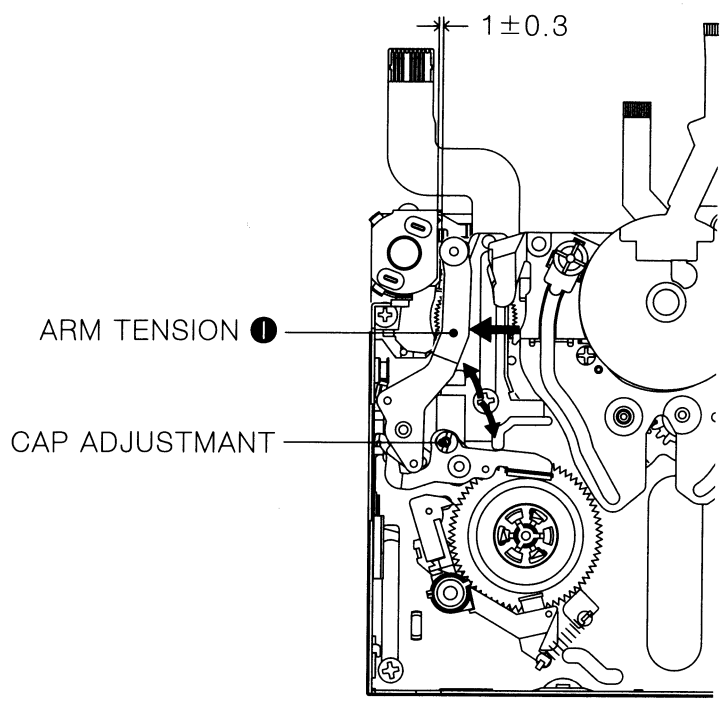


Fig 2-5

2-4-2 Back Tension Confirmation

1. Set up the cassette-torque tape.
2. Set to CAMERA mode, push the EDIT(+) KEY and check that the torque value of Reel S is 4.5±0.5g.cm.

2-4-3 PB/REV Torque check

1. Set up the cassette torque tape.
2. Set to CAMERA mode, Push the EDIT(+)Key and check that the torque value of Reel T is 7.5±3g.cm.
3. Push the EDIT(-) Key and check that the torque value of Reel S is 12.5± 3g.cm.
4. If necessary, replace the defective Gear pully Ass'y.

2-4-4 Reel Table Height Check

2-4-4(a) REMOVAL

1. Refer to 3-2 : Remove the Housing Ass'y.
2. Refer to 3-3 : Remove the Idler Ass'y

2-4-4(b) CHECK

1. Using vernier calipers, check the following distances : From the upper surface of the PCB Reel to the resting surfaces of Reel S,T table should each be 3.9±0.1㎜

2-4-4(c) MOUNTING

1. Refer to 3-3 : Mount the Idler Ass'y
2. Refer to 3-2 : Mount the Housing Ass'y

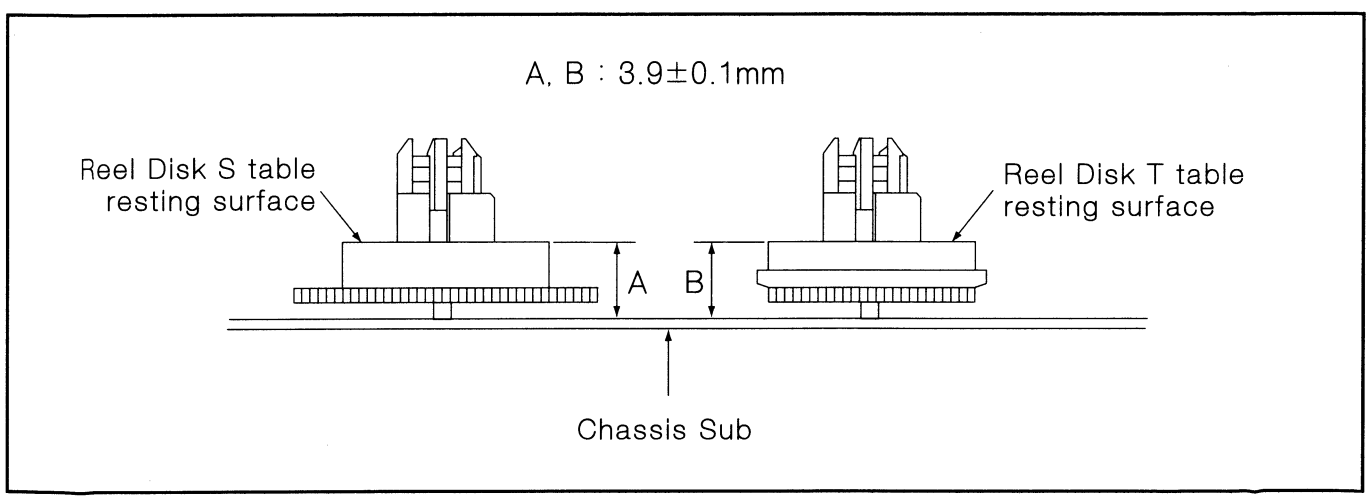


Fig 2-6

2-5 Tape Path Adjustment

2-5-1 Preparation for Adjustment

1. Clean the tape running surface(Poles, Drum, Capstan Shaft, Pinch Roller).
2. Refer to the Service Manual(page 5-1). Observe the PB RF signal and Head Switching Pulse on an oscilloscope.
3. Play back the alignment tape.
4. Check that the waveform of the RF signal is flatat both inlet and outlet(Fig. 2-7 A) If not flat (B or C in Fig 2-7), do adjustments 2-5-2 through 2-5-5.

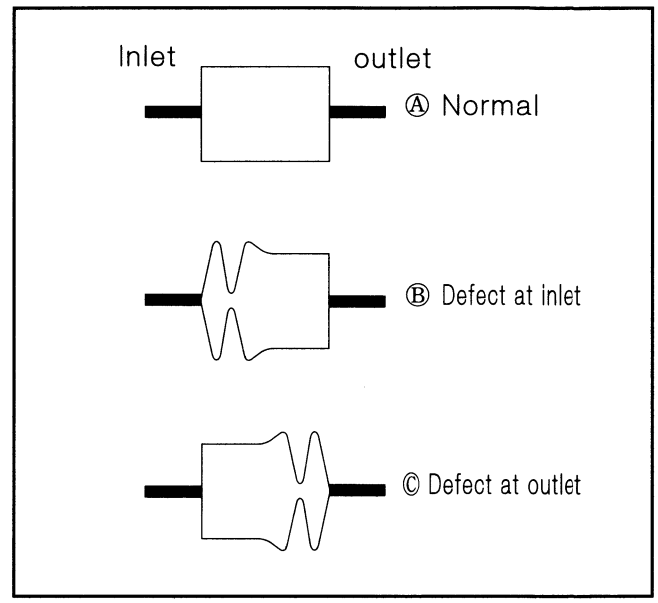


Fig 2-7

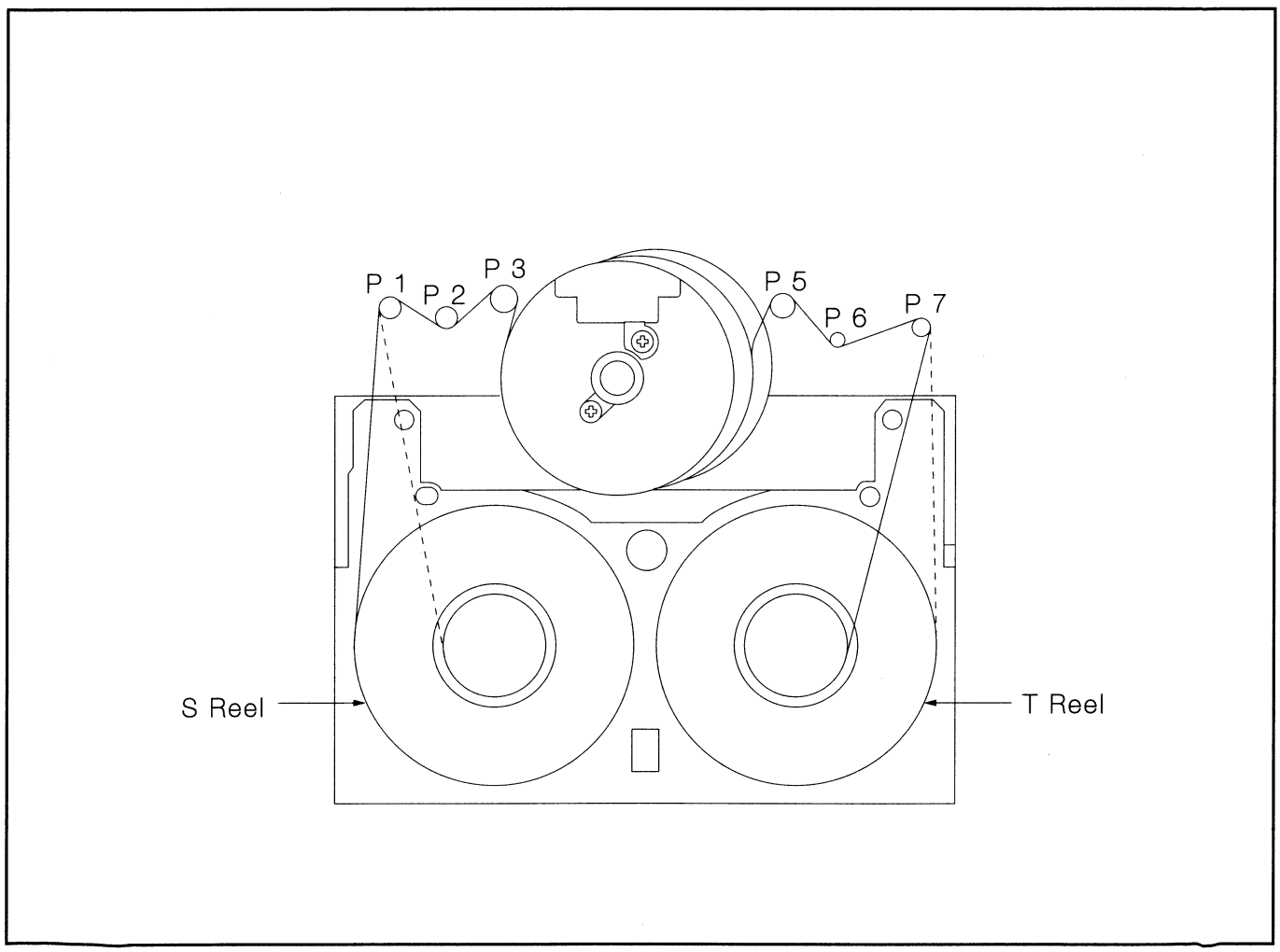


fig 2-8

2-5-2 Tracking adjustment

1. Play Back the alignment tape.
2. Turn P3 to flatten the waveform at the inlet
3. Turn P5 to flatten the waveform at the outlet

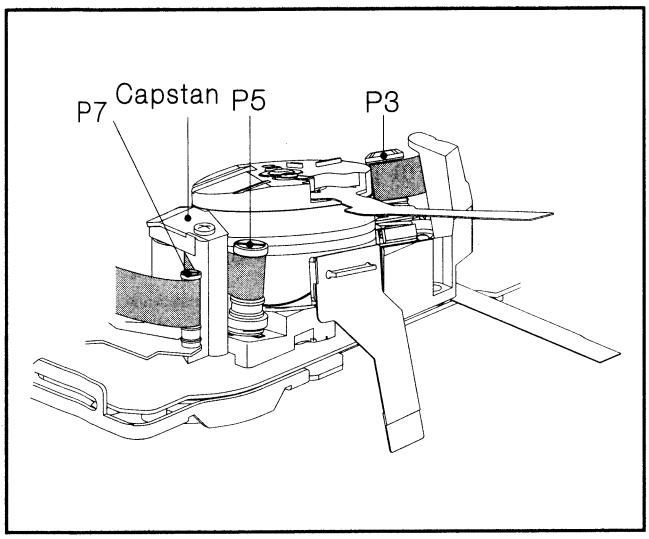


Fig 2-9

2-5-3 P7 Adjustment

1. Play back the alignment tape, and confirm that the tape is not twisted between the Guide Roller T and Capstan. (If the tape is twisted, turn P7, Fig 2-10)
2. Set to REV mode and observe the outlet waveform of PB RF signal.(Fig 2-12)
3. If the outlet waveform is out-of-spec, turn P7 counterclockwise, and redo steps 1 and 2.

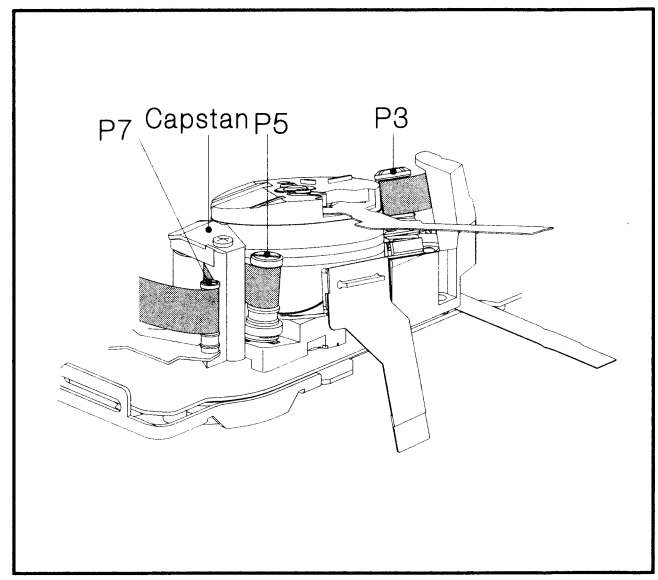


Fig 2-10

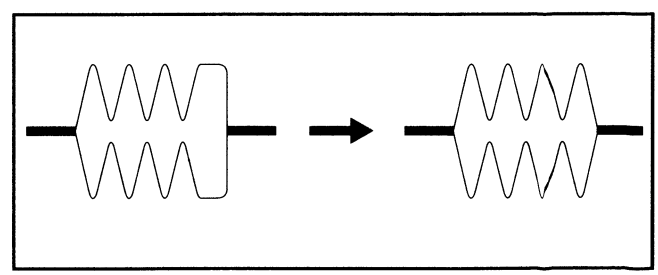


Fig 2-11

2-5-4 Check After Adjustment

2-5-4(a) TRACKING CHECK

1. Play back the alignment tape.
2. Confirm that the minimum amplitude value(E min.)is 80% of the maximum value(E max.)or larger.(Fig. 2-12)
3. Confirm that no large fluctuation occur on the waveform.(Fig. 2-13)

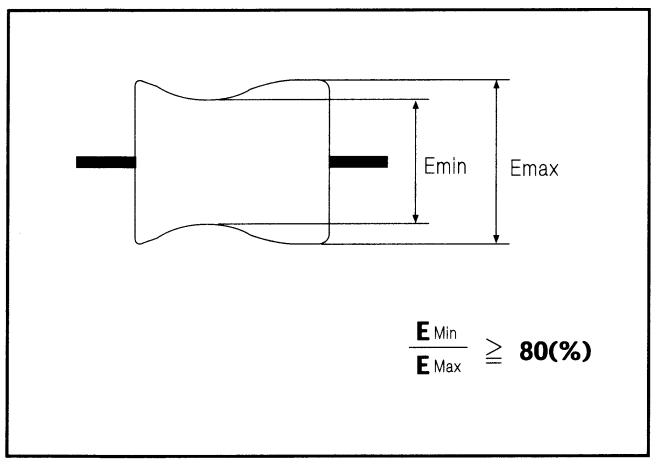


Fig 2-12

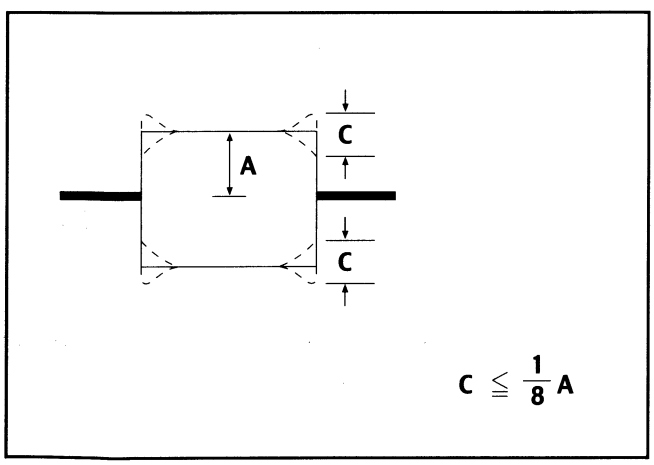


Fig 2-13

2-5-4(b) CUE AND REV CHECK

1. Play back the alignment tape, and set to REV mode.
   Confirm that the waveform peaks have a uniform Pitch.(Fig 2-14 A)
   If the track pitch is not uniform, do section 2-5-2 (Tracking adjustment)and 2-5-3(P7 adjustment)
2. Set to CUE mode.
   Confirm that the waveform peaks still have a uniform pitch. (Fig. 2-14 B)
   If the track pitch is not uniform, do section 2-5-2(Tracking Adjustment)

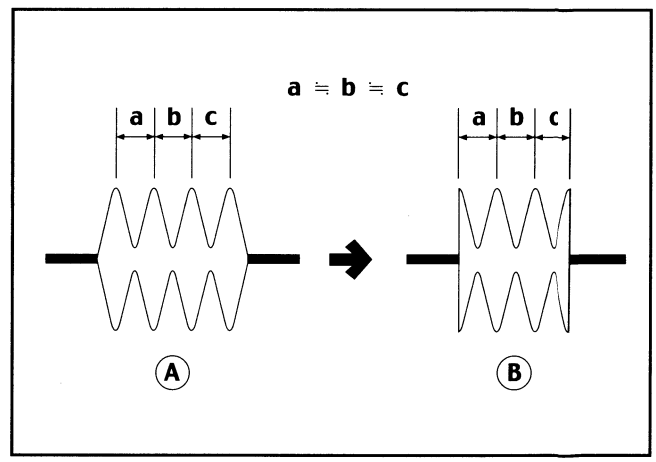


Fig 2-14

2-5-5(C) RISE TIME CHECK

1. Play back the alignment tape.
2. Set to playback mode, and confirm that the waveform of PB RF signal rises flat within 3 seconds. Also confirm that the tape is not twisted or curled around the Pinch Roller.(Fig 2-15)
3. Run the tape in CUE/REV and FF/REW modes, then playback. Confirm the waveform of PB RF signal rises flat within 3 seconds. Also confirm that the tape is not twisted or curled around the Pinch Roller.
4. Repeat steps 2. and 3.

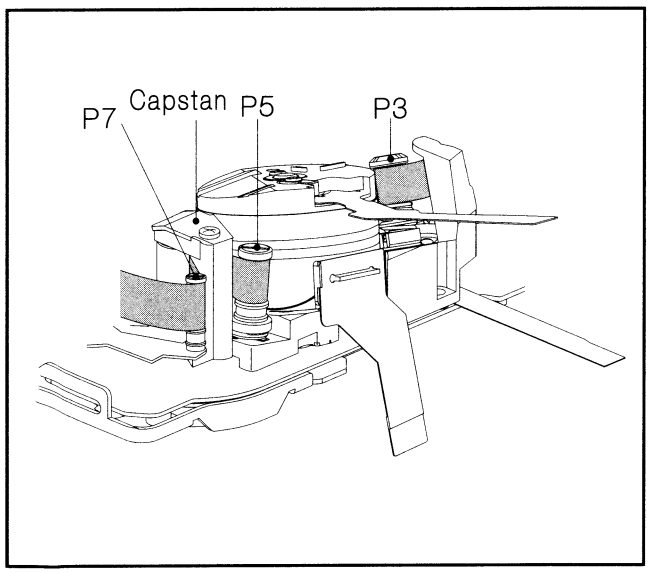


Fig 2-15

2-5-4(D) TAPE PATH CHECK

1. In CUE and REV modes, check that the tape is not curled around the P1, P3, P5 upper flange and P7 upper/Lower flanges.

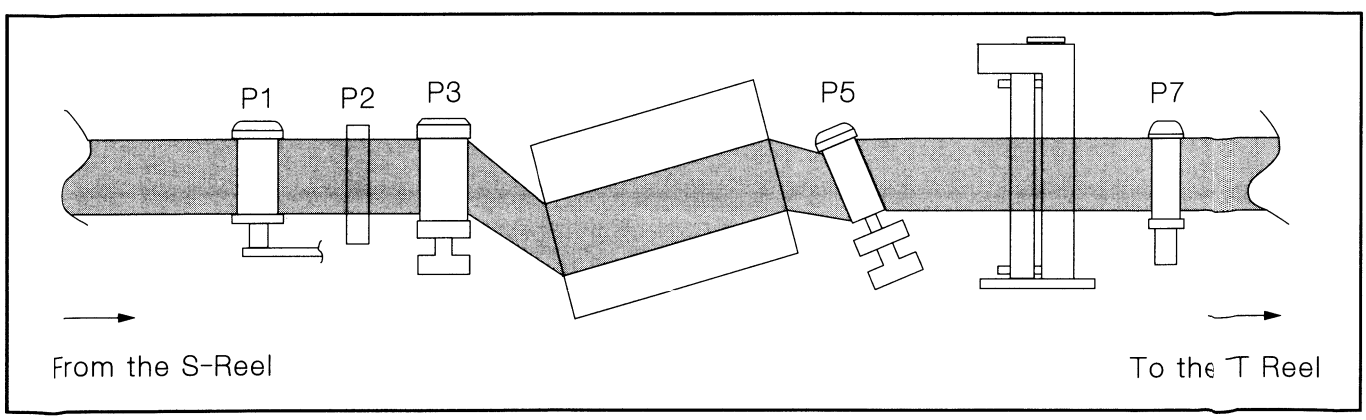


Fig 2-16

3. Disassembly and Reassembly

3-1 How to Load and Unload (Setting the Mechanical Modes)

1. Set the power-supply output to approximately 5V, and connect it to the Motor Loading.
2. Choose the polarity depending on whether loading or unloading.(See Table 3-1)
3. Supply the voltage to the Motor Loading.

Table 3-1

Ⓐ	Ⓑ	Movement of chassis
+	-	Loading
-	+	Unloading

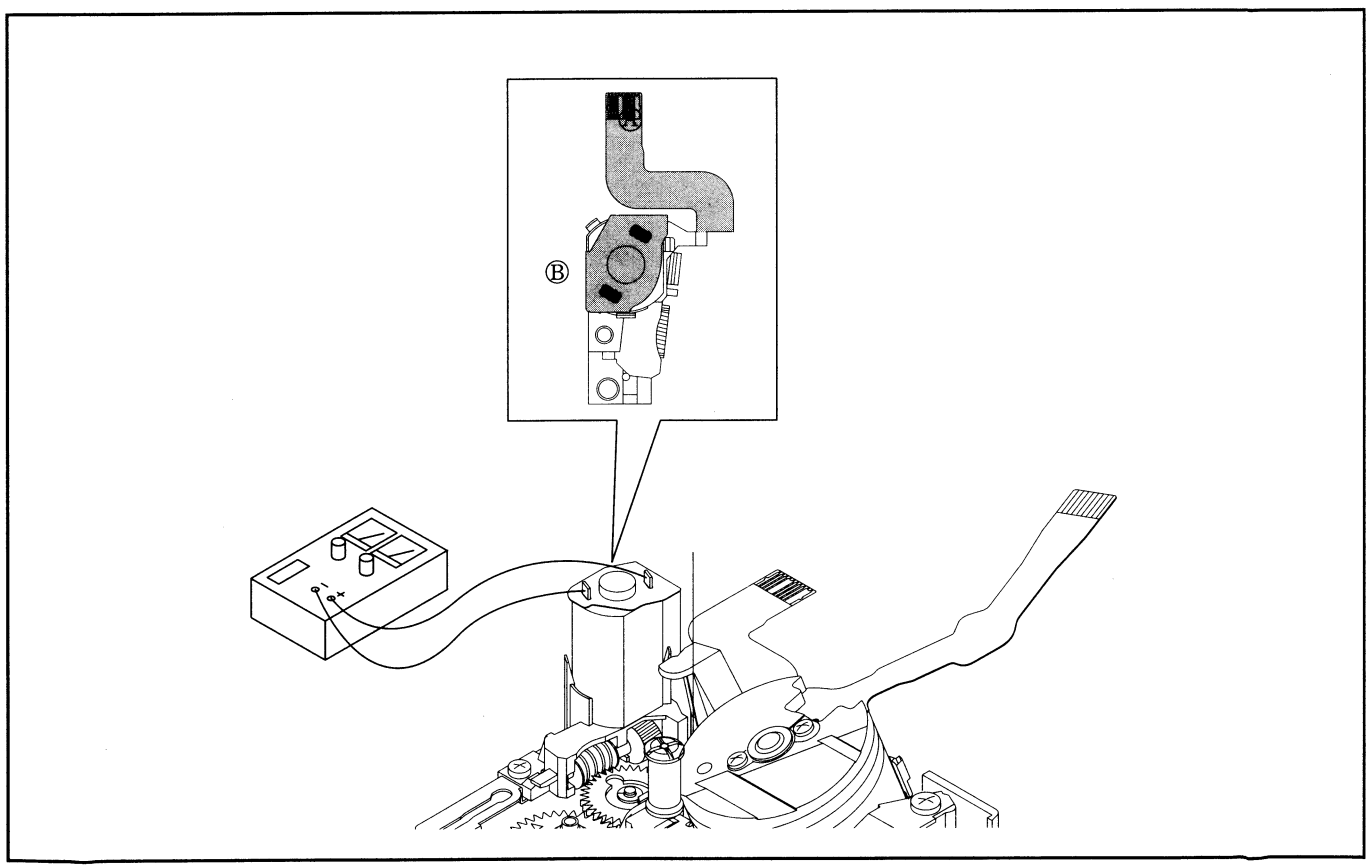


Fig 3-1 Loading and UnLoading

3-2 Housing

3-2-1 Disassembly

NOTE : Do disassembled and reassembly in the unloading

1. Push the Lever(see arrow, Detail A) turn the Lever Lock❶in the direction of arrow B, and open the Housing.
2. Remove the screw ❷ ,and separate the Hook L and Hook R and then lift it.
3. Separate the Lever L ❹ and Lever R from the Stud-housing L ❺ and stud-housing R ❻, and then lift the Housing Ass'y.

3-2-2 Reassembly

1. Mount the Cam L and Cam R of Lever Housing ❹ to stud Housing L ❺ and stud Housing R❻.
2. Put the Hook L ❸ and Hook R into the Sub chassis ❽, pushing them in the direction of A, and then reassembled Housing Ass'y ❼ into the Sub chassis ❽.
3. Secure the screw ❷

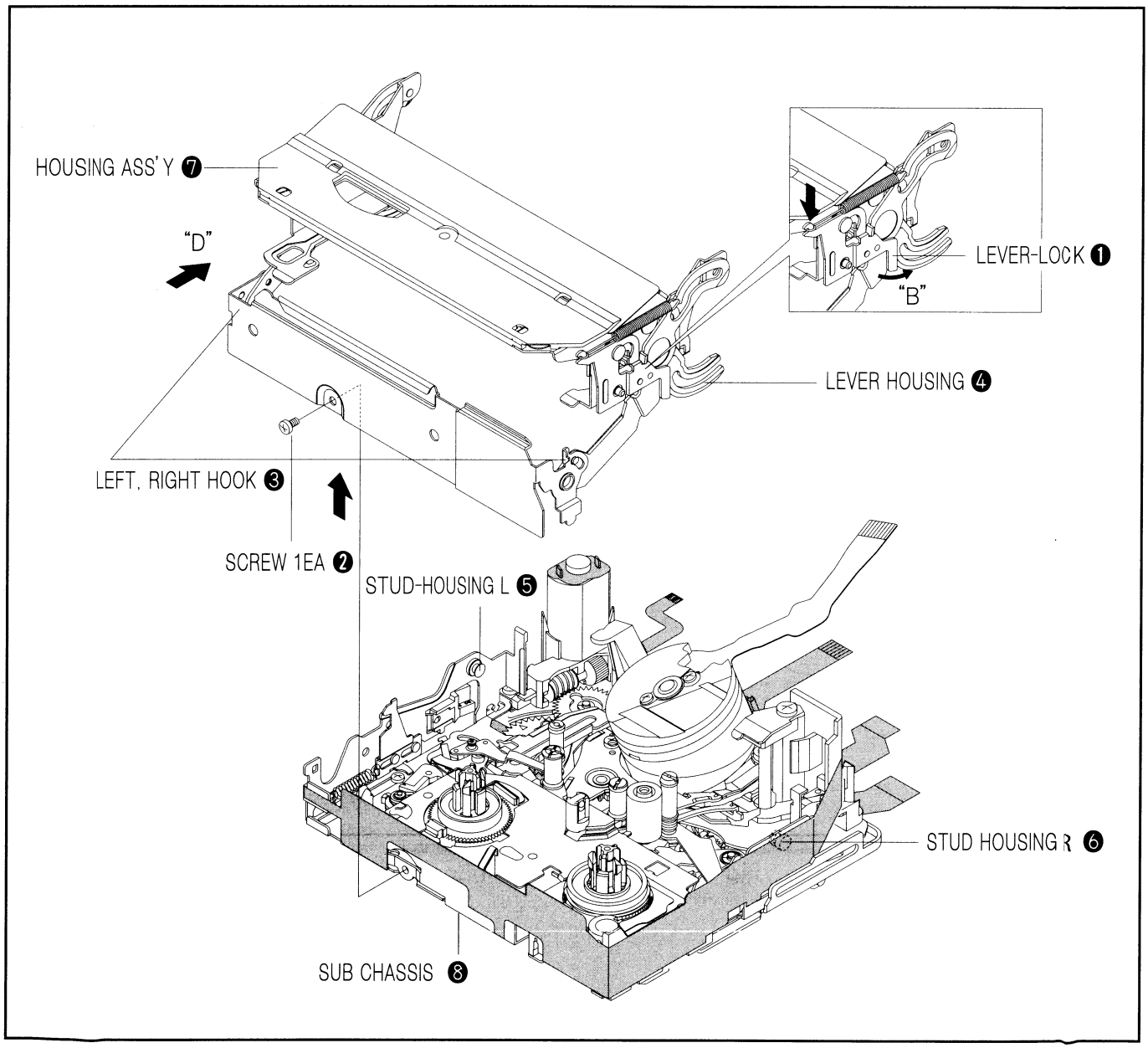


FIG 3-2 HOUSING

3-3 Cover Reel Ass'y, Idler Ass'y

3-3-1 Disassembly

1. Remove the screw ❶, then lift the Cover Reel Ass'y ❷ in the direction of arrow.
2. Remove the Washer Slit ❸, then lift the Idler Ass'y ❹.

3-3-2 Reassembly

1. Fit the Idler Ass'y ❹ into the Pin, then install the Washer Slit ❸ .
2. Mount the Cover Reel Ass'y ❷ to the Sub chassis in the reverse direction of arrow.
3. Secure the screw❶.

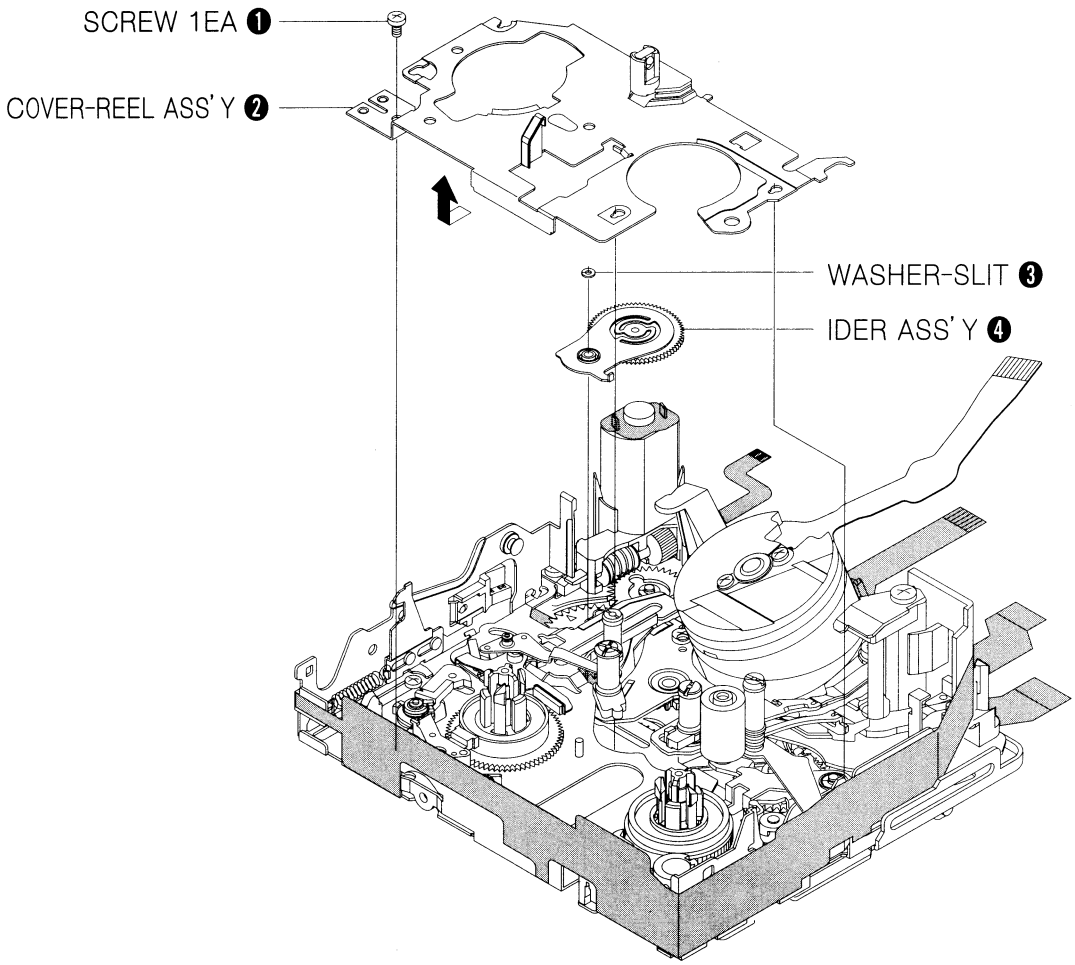


Fig 3-3 Idler

3-4 Sub Chassis

3-4-1 Disassembly

Note 1 : when disassembling, take care not to damage any parts. Do not stain the rollers and poles with oil or grease.
Note 2 : Always remove the Sub-Chassis Ass'y When the Deck Ass'y is in unload mode.

1. Released Sub-FPC
2. Remove 3 screws ❶
3. Lift the Sub-chassis Ass'y ❺ from Main-chassis Ass'y ❻.

3-4-2 Reassembly

1. Push the arm Tension Ass'y ❹ in the direction of arrow A, insert Pin Lever Cam ❼ of main-chassis Ass'y ❸ into the Sub-chassis cam ❺ of Sub-chassis Ass'y ❷
2. Fit the screw locking holes (❸ points) of Sub-chassis Ass'y ❷ to the Guide Pin ❽ of Main-chassis Ass'y
3. Secure 3 Screws

Note 1 : After assembling ❷ with ❺ make sure that Sub-chassis Ass'y ❷ loads and unloads correctly by applying 5V to the Motor Loading.
Note 2 : when reassembling, confirm that pin of Arm-review insert into the Guide-Cam

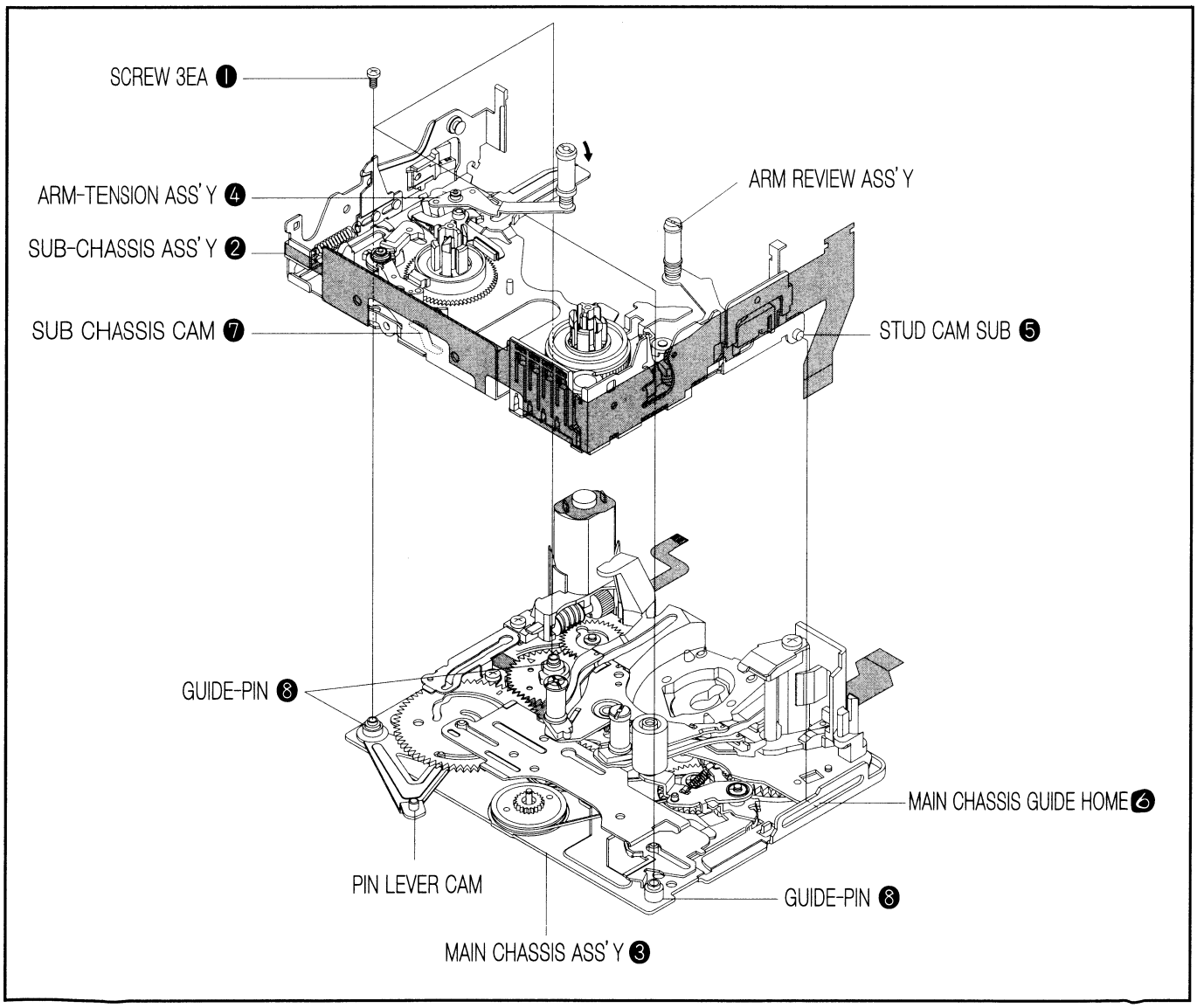


Fig 3-4 Sub Deck

3-5 Arm-Tension and Arm-Review

Note : When disassembling, take care not to deform the part. Do not stain the roller and post.

3-5-1 Disassembly

1. Separate the spring-Tension ❷ from Hook ❽ of sub-chassis.
2. Remove the Washer-slit⓫, and then lift up the Arm-Tension ❶.
3. Lift up the Brake-Tension ❸ and the Tension Release ❹.
4. Lift up the Arm-Review❺.

3-5-2 Reassembly

1. Insert the Arm Review ❺ into the pin1 ❽.
2. After Tension Release ❹ assembled to the pin 3 ⓾, Brake-Tension ❸ insert in the pin 3⓾.
3. When Arm-Tension ❶ insert in the pin 2 ❾, pin of Arm-Tension ❻ assembled into cam part ❺ of Brake Tension.
4. Assambled the Washer-slit ⓫.
5. Hang the spring Tension ❷ to the hook of Brake Tension ❸ and hook of sub-chassis ❽.

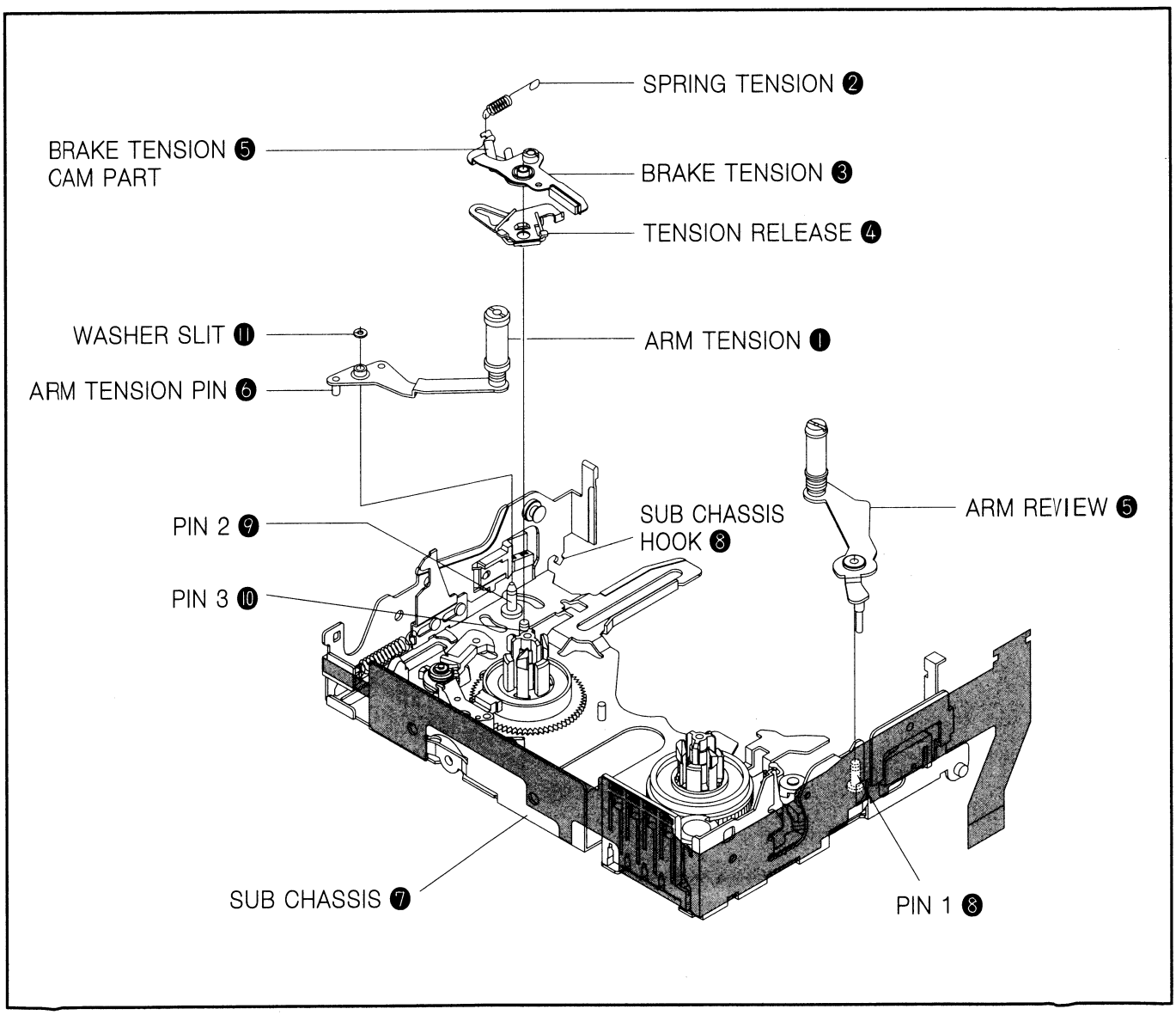


Fig 3-5 Arm Review and Arm Tension

3-6 Reel Disk S, T, Brake S, Brake Main T, Brake Pully, Lever Eject

3-6-1 Disassembly

1. Separate the spring Brake S ❺ from the spring hook ⓫, and then lift it up.
2. Remove the washer-slit ❹, lift up the Brake S ❸.
3. Separate the spring Main Brake T ❼ from the spring hook ⓫, lift up the Brake Main T ❻
4. Lift up the Reel S ❶, T ❷.
5. Remove the screw 1EA ❾, lift the Brake pully ❽.
6. Lift up the Lever Eject ⓾.

3-6-2 Reassembly

1. Mount the Lever Eject ⓾.

Note : "A" part of the Lever Eject ⓾. Put to the left of sub chassis stopper ⓬.

2. Mount the Brake pully ❽, secure the screw 1EA ❾.
3. Insert the washer slit ❶.
4. Mount the Brake main T ❻, hang the spring Main Brake T ❼ to the spring hook ⓫.
5. After Mount the Brake S ❸ and insert the washer slit ❹, and then hang the spring Brake S ❺ to the spring hook ⓫.

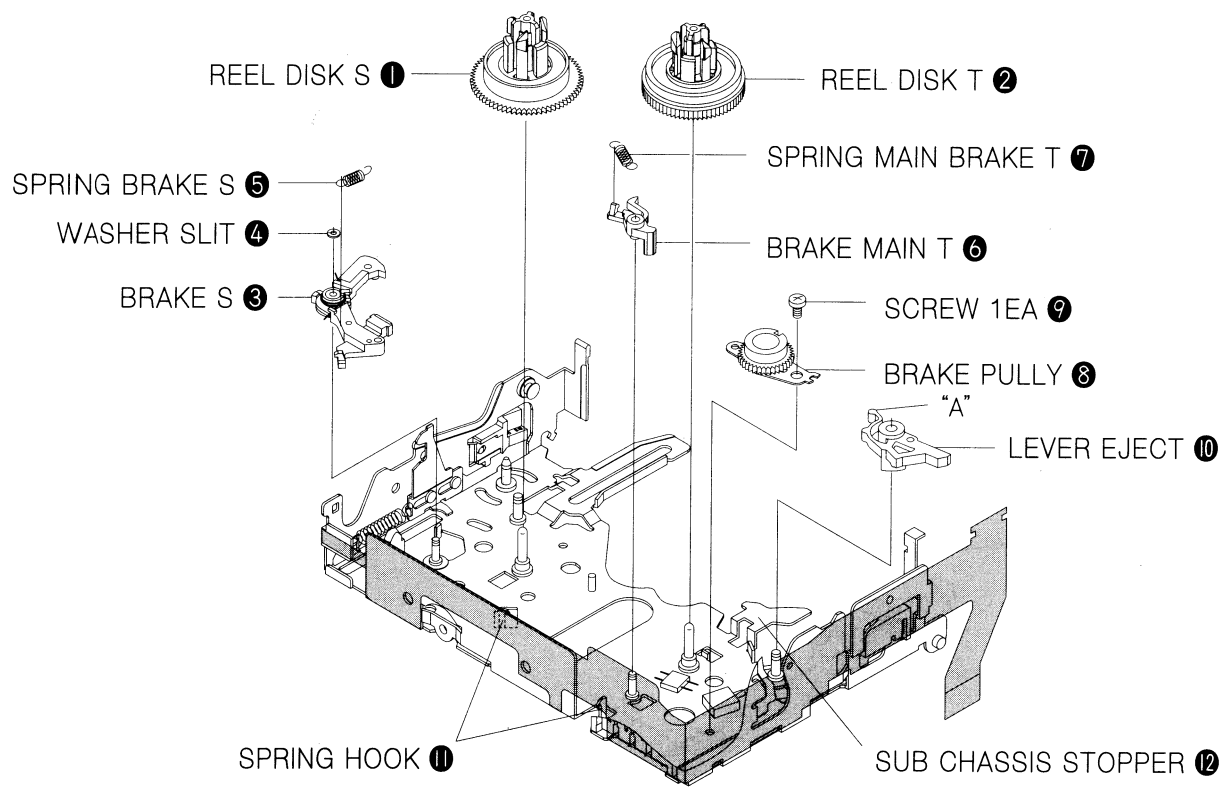


Fig 3-6 RELL DISK S, T, BRAKE S, BRAKE MAIN T, BRAKE PULLY, LEVER EJECT

3-7 DRUM

3-7-1 Disassembly

Note1: Do not touch the Head tip❷ when removing or reassembling the Drum❶.
Note2: Do not touch the Roller S❼, T❽ when removing or reassembling the Drum❶.

1. Remove 1 screw ❹ and then remove the spring plate Drum ❸.
2. Remove the Drum ❶.

3-7-2 Reassembly

1. Mount and insert the Drum ❶ to the Bosses ❺.
2. Insert the spring plate Drum ❸, and secure the screw ❹.

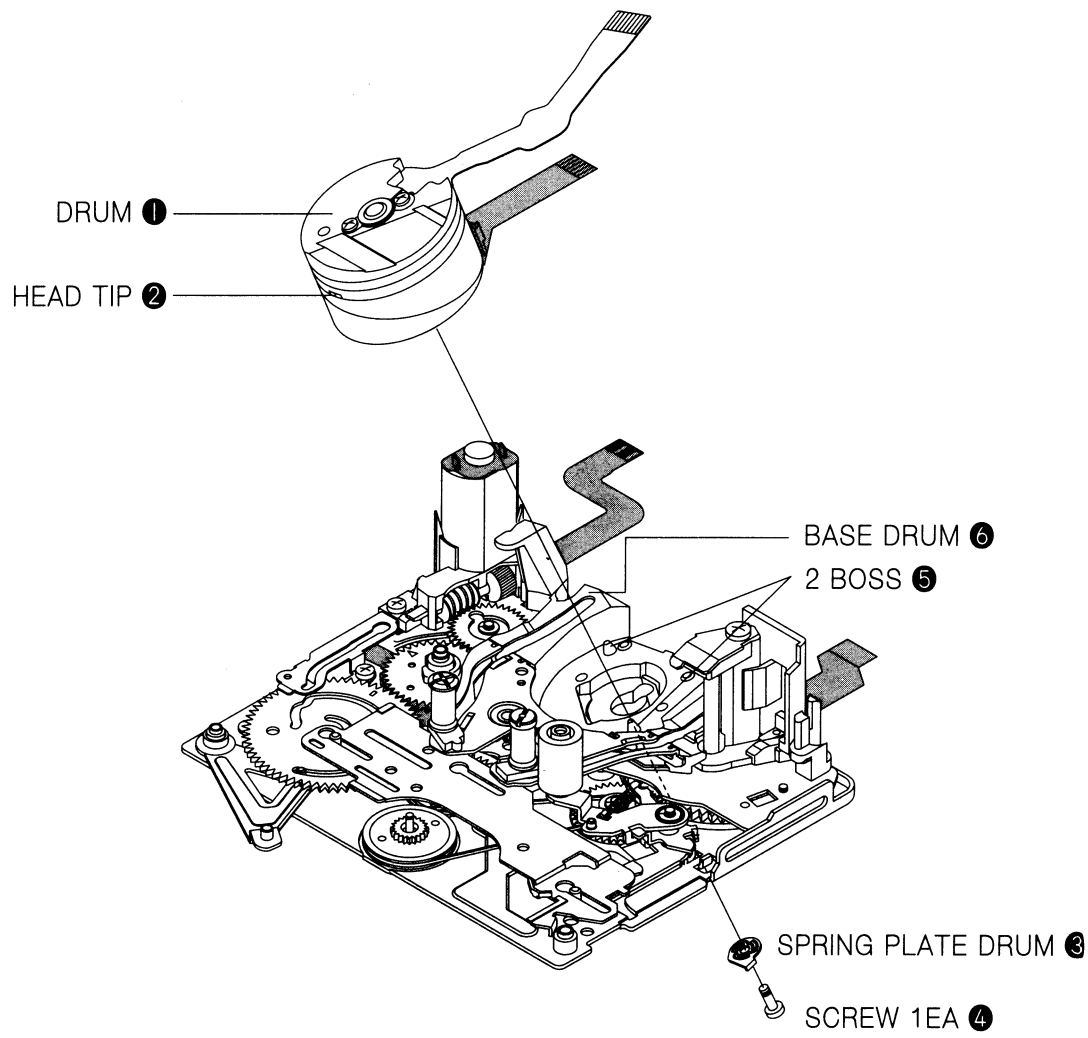


Fig 3-7 DRUM

3-8 Guide Rail Ass' y

3-8-1 Disassembly

Note1: When removing or reassembly, do not touch Guide Roller S ❹ and Roller T ❺.(Protection Stein)
Note2: When removing or reassembly,the Guide Roller S ❹ and T ❺, be careful not to deform the Guide Rail❷(pushing the cautious)

1. Remove the screw 3 ❶ in the up and the screw 1 ❼ in the back, lift up the Guide rail ass' y ❷.
2. Separate it and turn to count clock wise the Guider Roller S ❹ and T ❺, and then separate the spring Guide Roller 2 ❻.

3-8-2 Reassembly

1. Insert the Spring Guide Roller 2 ❻ to the pole Base S ❽ and T ❾, and then assemble the Guide Roller S ❹ and T ❺ as turn to count clock wise.
2. After Pole Base S ❽ and T ❾ unloading mode, and then assemble Guide Rail Assy ❷ to the Main chassis ❿ and secure the screw 3 ❶ in the up and the screw 1 in the back ❼.

Note 1 : When removing and reassembling Guide Rail Ass'y, Be careful not to assemble point.
Note 2 : Disassemble and reassemble in unload mode.
Note 3 : After assembling, make sure that loading and unloading work correctly by applying 5V to the Motor Loading.

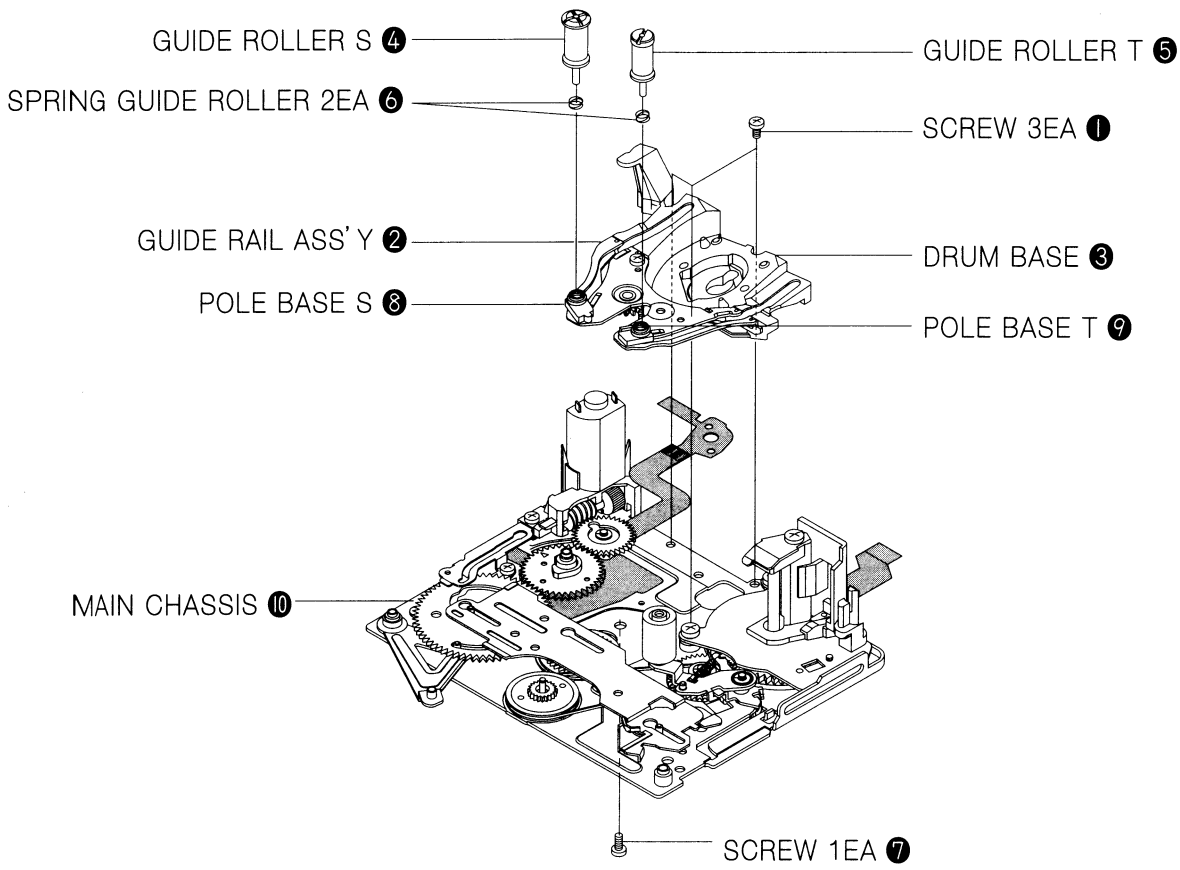


Fig 3-8 Guide Rail

3-9 Motor Loading, Guide Tension Cam, Gear Wheel

3-9-1 Disassembly

1. Eliminate pt welding 4 part ❽.
2. Remove the screw 1 ❷ and the Hooke 2 ❼, and then Lift up the Loading ass'y ❶.
3. Remove the screw 1, Lift up the Guide Tension cam ❹
4. Remove the washer slit ❺, Lift up the Gear wheel ❻

3-9-2 Reassembly

Reassemble in reverse order

Note : Be careful not to touch the hand in the dew

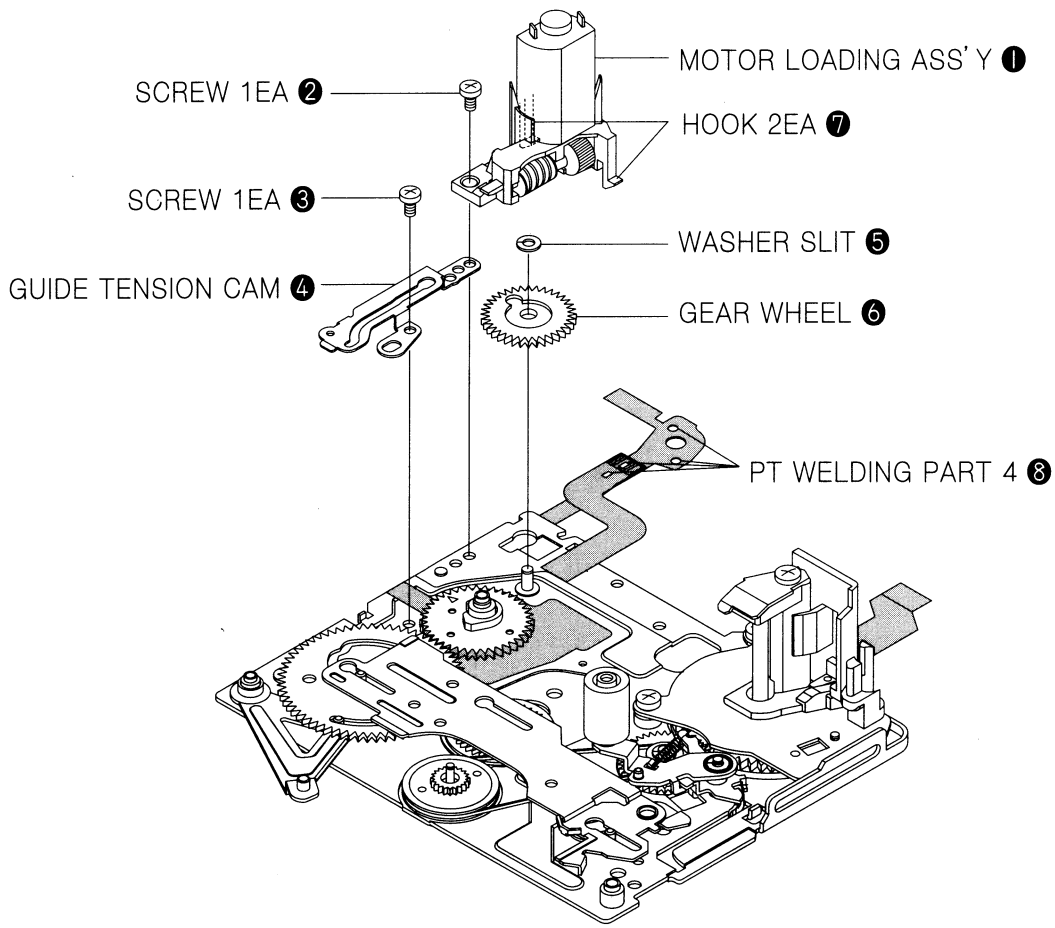


Fig 3-9 Motor Loading, Guide Tension Cam, Gear Wheel

3-10 Motor Capstan, Holder FPC Sub, Arm Pinch Roller, Slide Main

3-10-1 Disassembly

Note 1 : When removing and reassembling, be careful not to giss the Gear Part.
Note 2 : When removing and reassembling, be careful not to touch the hand in the pinch Roller.(Protection contamination)

1. Remove the screw 1 ❶, lift up the Holder FPC Sub ❷.
2. Remove the screw 2 ❸, lift up the motor Capstan ❹
3. Remove the washer slit ❺, separate the "A" part of spring Lever pinch ❻ to the spring hook of Arm pinch Roller ❼.
4. Lift up the Arm pinch Roller ❼.
5. Lift up the spring Lever pinch ❻.
6. Turn Gear cam main ❽ in the reverse direction of Arrow B to the End, and then lift the slide main ❾ in the direction of arrow D.

3-10-2 Reassembly

Reassembly in reverse order.

Note: When removing and reassembling, must be correspond to assemble point Gear cam main.

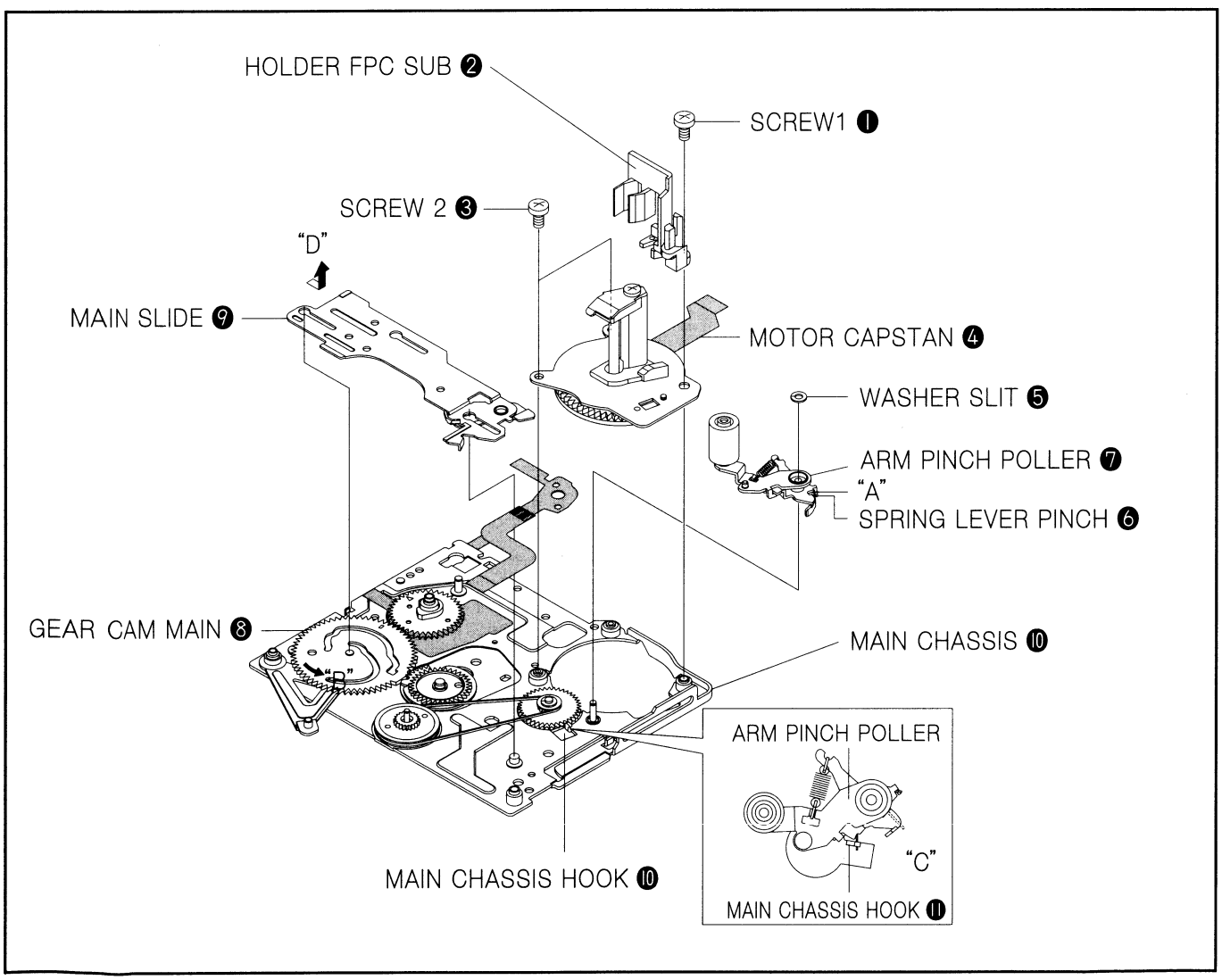


Fig 3-10 MOTOR CAPSTAN, HOLDER FPC SUB, ARM PINCH ROLLER, SLIDE MAIN.

3-11 Gear Cam Main, Lever Cam, Gear Connector

3-11-1 Disassembly

1. After lift the Gear Cam Main ❶, and then lift up the Lever Cam ❷.
2. Lift the Gear Connector ❸.

3-11-2 Reassembly

1. Align the hole of the Gear Connector ❸ and the Main chassis hole with Timing(B)(HOLE)
2. Align the hole of the Lever Cam ❷ and the Main Chassis hole with Timming(A)(HOLE)
3. Align the hole of the Gear Cam Main ❶ and the Main Chassis hole with Timing(C)(HOLE)

Note : When reassemble the Gear Cam Main, assemble the Gear Mode switch to align with Detail "D".

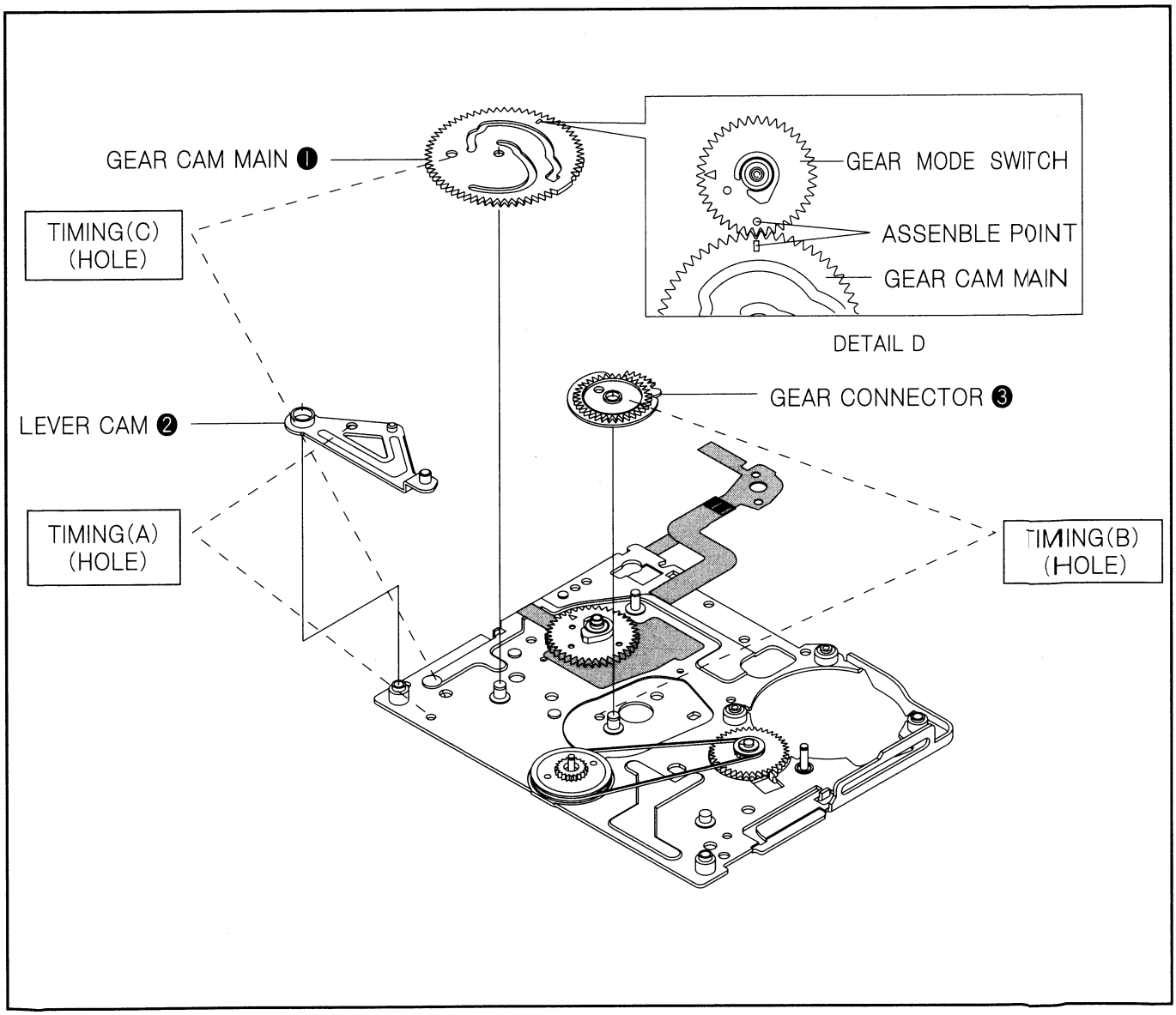


Fig 3-11 Gear Cam Main, Lever Cam, Gear Connetor

3-12 Gear Pully, Belt Timing, Gear Capstan

3-12-1 Disassembly

1. Rmove the washer slit ❶, Lift the Gear Capstan ❷
2. Separate the Belt Timing ❸ , Lift the Gear pully ❹

3-12-2 Reassembly

1. Mount the Gear Pully ❹ and hang the Belt Timing ❸ on the Gear Pully ❹
2. Hang the Belt timing ❸ to the upper Gear of the Gear Capstan ❷ and mount the Gear Capstan❷.
3. Assemble the washer slit ❶.

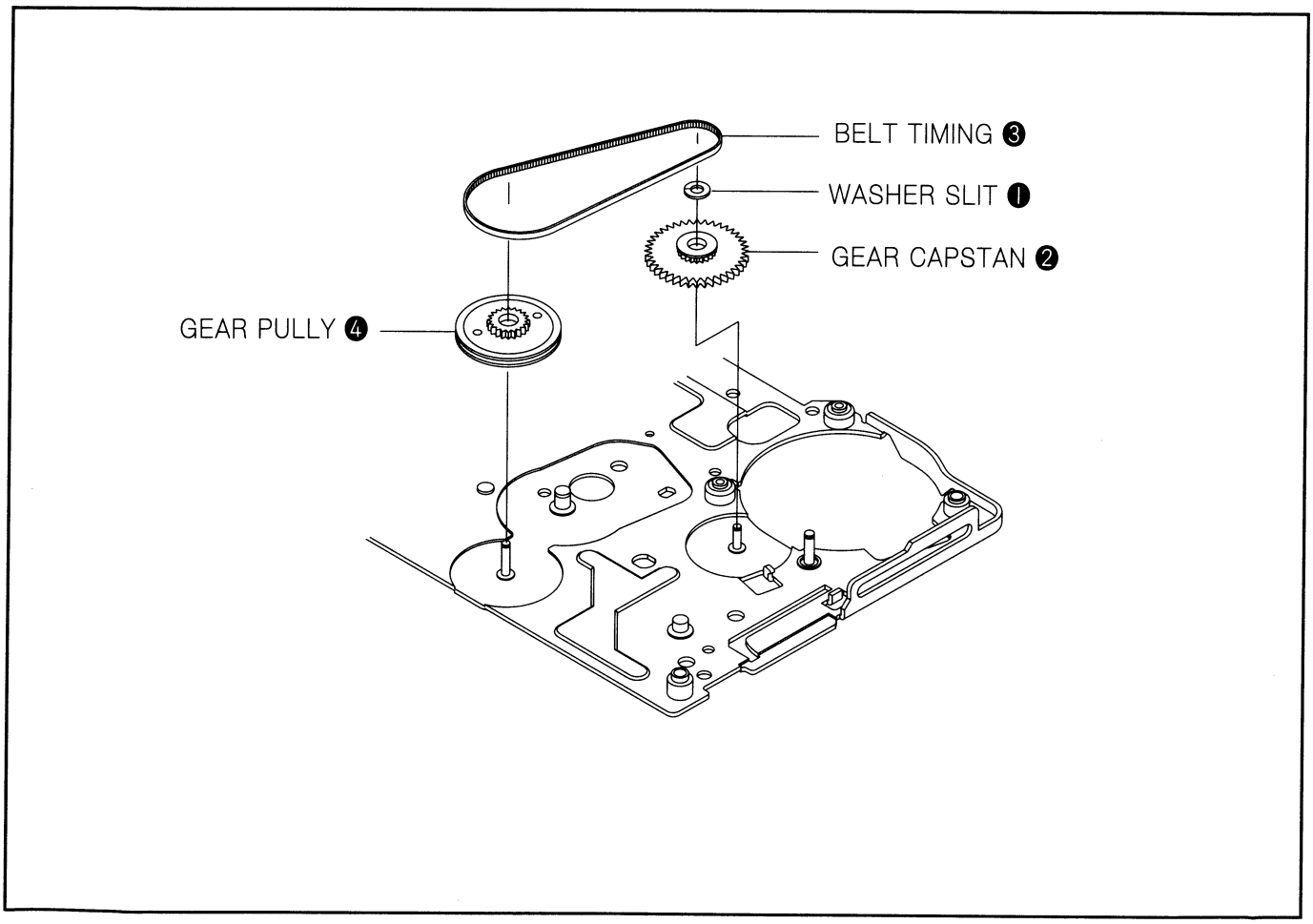


Fig 3-12 Gear pully, Belt timing, Gear Capstan